

MAR 15 '46

1. Dean Sinclair  
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# Farm and Ranch Review

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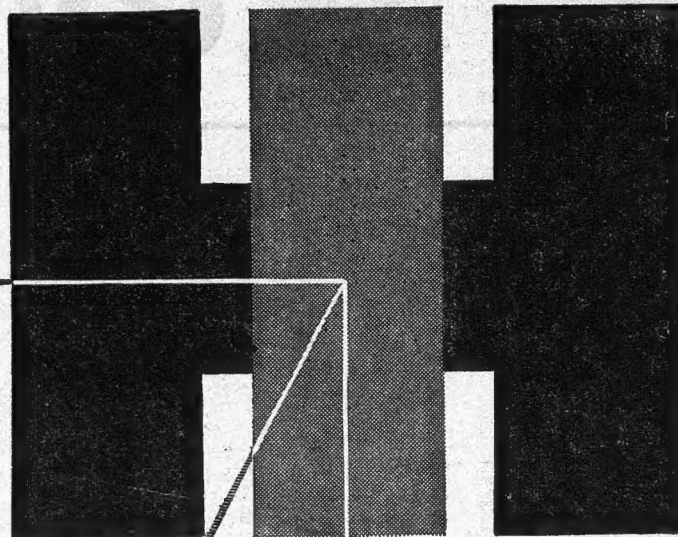
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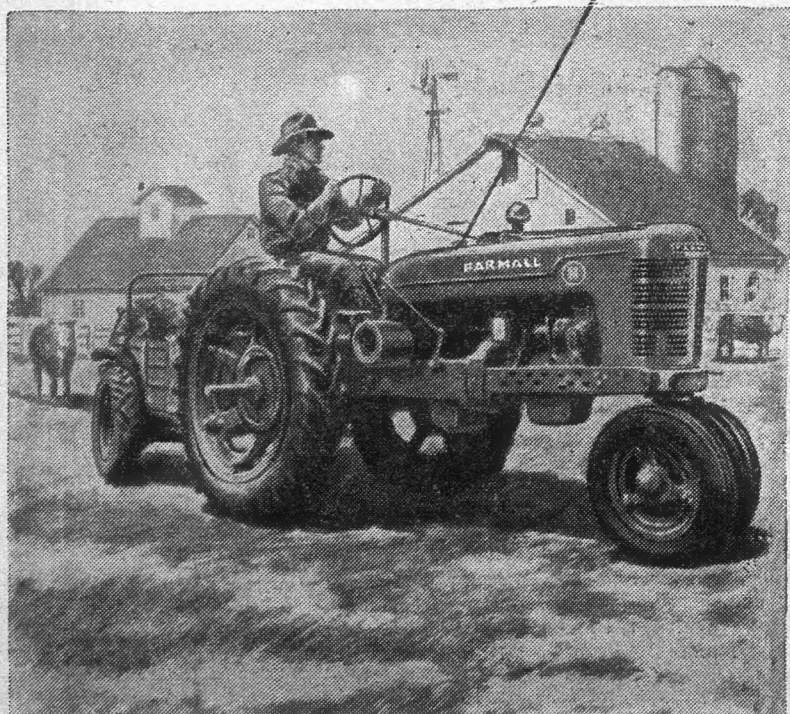
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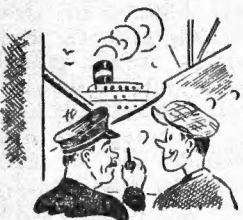
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FERTILIZER DIVISION

## Sugar Beets, Special Crops Bring Prosperity to South

By FRED SALTVOED

THE irrigated districts surrounding Lethbridge, Alberta, are said to be among the most prosperous farming communities between Ontario and British Columbia. Admittedly, the Lethbridge area is blessed with soil which has responded uniformly well to irrigation, but much credit for its prosperity also is due to the sugar-beet industry. Although the three-fifths of the irrigation farmers who do not grow beets or any other row crop also are prospering, it is generally agreed that sugar beets give higher returns on irrigated land than any other crop. Mr. Wyman, an experienced official of the Lethbridge Northern Irrigation District in which over one-third of Alberta's sugar beets are grown, declares that the beet growers are considerably better off on the average than the non-growers—and Mr. Wyman should know if anyone does.

Lethbridge district, site of the only two sugar factories in Alberta, at Raymond and Picture Butte, produced last year more sugar beets than all the rest of Canada. Dominion statistics as quoted in the 1945 report of the Alberta Sugar Beet Growers, show production in the only four provinces in which the beets were grown:

	Beet Acre- age	Total Ton- nage	Av. Tons Per Acre	Av. % Sugar
Quebec	1,100	9,844	8.9	14.4
Ontario	17,661	164,166	9.3	17.27
Manitoba	9,500	82,000	8.6	15.5
Alberta	30,300	362,621	11.7	16.93

The Alberta average yield was over 2½ tons per acre greater than the average for the rest of Canada. Alberta had 2,000 more acres and 106,611 more tons of beets than the other three provinces combined. Further, the average sugar content of Alberta beets was exceeded only by Ontario beets, and that by a very slight percentage.

Final price will not be known for some time, but on the basis of the total payment of \$10.92 per ton for 1944 we can calculate the value of Lethbridge's 1945 beet production at \$4 million. The average payment to each of the 1,347 growers will be over \$2,900.

"Objective of the sugar beet growers in Canada is to produce from 40 to 50 per cent of the total sugar consumption. To do this will require almost double the factory capacity we have today," Phil Baker, president of the Alberta Sugar Beet Growers, has stated.

IF that objective is reached, it will mean the production of many millions of dollars of new wealth in Canada annually. Of course, it is not all profit to the beet grower by any means: he pays his hand labor approximately one-third of his gross income, has \$500 to \$2,500 invested in beet culture machinery and \$5 per acre in seed and fertilizer, according to Mr. Baker, who adds, however, that almost the entire amount of this money is spent in the beet areas and contributes in very large measure to their prosperity.

Labor is hard to get and a serious shortage is in sight in 1946, although W. Y. Cannon, president of the American Society of Sugar Beet Technologists, forecasts that the labor problem will be eliminated within 10 years by complete mechanization of operations. A constant threat to the grower is ad-

### EXPECT HIGH PRICE FOR 1945 BEETS

THE first subsequent payment on the 1945 sugar beet crop was mailed to beet growers February 15. The payment is 55 cents. The initial payment for 1945 beets was \$8 a ton, making the payment \$8.55 to date. Additional payments are made from time to time during the year, and it is expected the final payment on the 1945 crop will exceed the \$10.92 per ton of the year before. "The cheques will soon go into circulation, helping all lines of business," states a Raymond dispatch in the Lethbridge Herald.

verse weather. Mr. Baker has stated that in his opinion Lethbridge is about as far north as sugar beets can be successfully grown, owing to frost. As a matter of interest, Brooks, Alta., where a \$2 million beet factory is under consideration, had a 30-year average frost-free period of 115 days compared to Lethbridge's 112 days. By comparison, Edmonton had 95 frost-free days.

In addition to the two sugar factories four canneries are operating—at Coaldale, Lethbridge, Magrath and Taber. This is a happy combination for some producers, who may thus employ their big investment in beet or potato machinery in growing other row crops as well. Further, if a legume such as peas or beans is grown it works in well, as a legume is considered an absolute "must" in any crop rotation which includes beets or potatoes. However, it is true that other farmers have their hands full growing only one-row crop—either beets or potatoes, or some other vegetable for canning or fresh sale.

IT is estimated that 5,000 acres of canning crops, such as peas, beans and corn, were sown in 1945, and that some \$1 million accrued to the growers from these crops and the by-products.

There were about 2,500 acres of potatoes, with an average yield of around four tons per acre, last year, from which the growers grossed about \$350,000, believes Mr. Archibald of the provincial department of agriculture, who specializes in this crop. There also were a few hundred acres of vegetables for fresh sale and for pickling, which probably brought in another \$150,000.

Not only did the Lethbridge growers haul a huge tonnage of beets to the factories, but they had left on their farms well over a ton of beet tops, dry basis, per acre, which had a feeding value equal to \$15 alfalfa hay, ton for ton, estimates S. Graham, the district agriculturist. Thus, the beet tops had a feeding value of at least \$15 per acre—and that gave a gross value of some \$455,000 for all the beet tops in the district. Peavines from the smaller pea acreage had an even greater feeding value per acre.

Further, from the two factories 80,000 tons of wet beet pulp was available to the growers on a quota basis at about \$1.25 per ton delivered to the farm. On the basis of several tests conducted at experiment stations in the United States the feeding value per ton of this pulp equals about \$3.80, at the present Lethbridge values of grain and alfalfa hay. This difference of \$2.50 per ton between cost and feeding value constitutes another \$200,000

(Continued on page 8)

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# EATON'S

## Mounting Interest Shown In Rural Electrification

By FRED SALTVOED

THE mounting interest in rural electrification was illustrated by the fact that he had just come from the Lethbridge office of the Calgary Power Company where a group of farmers, with map, were urging the company to bring electricity to their district, said E. B. Martin, agricultural engineer with the Dominion experimental farms service who is studying the Alberta electrification projects, when he addressed the agricultural short course at Lethbridge. While this was a good thing, he warned that bringing power to a sparsely populated province like this was an expensive proposition.

However, if electricity is wisely used on a farm it is not high-priced, and he believed that if farmers bought such equipment as milking machines, washers, pig and chick brooders, electric motors for necessary purposes, which pay for themselves, there was no reason why electric current would not continue to be economical on farms even if a price slump occurs. As evidence, he pointed to the fact that several Olds farmers were paying their entire electric bill through the increased production of eggs resulting from the use of electric lights in the poultry house.

In order to make good use of his heavy investment in electrical equipment, and to reduce the cost per unit of current as low as possible, the farmer must plan to use as much power as he can economically utilize. At Olds, the minimum charge is \$5 monthly, covering the first 20 K.W.H. per month, and two cents per K.W.H. per month for each K.W.H. over 20. This means that each K.W.H. monthly costs 11.2 cents if 50 K.W.H. are used, 6.6 cents if 100 K.W.H. are used, 4.3 cents if 200 K.W.H. are used, and 3.1 cents if 400 K.W.H. are used.

Double up on the use of motors if possible, he advised. One farmer hooked up his grinder, milking machine and rotary pump on one three-horsepower motor, so when he switched it on all three machines could be operated at once. That was an economical use of power, if the installation was checked by an electrician to make sure the motor was not being overloaded, Mr. Martin said.

He cautioned against putting in too cheap an installation in order to save a few dollars. One farmer he knew who had used exposed wiring, and only a single drop light in each room with a pull-chain switch, had regretted his false economy almost as soon as he turned on the lights. A fancy wiring job was not recommended by Mr. Martin, but he said a little extra money to get a good installation was well spent.

## Plan Many Improvements In Farming Equipment

AVOID buying new farm equipment immediately if you can get along on what you have, was the advice given at the Lethbridge agricultural short course by G. N. Denike, agricultural engineer at the Swift Current experimental station where extensive investigations have been made into farm machinery. He foresaw major changes ahead, which might be worthwhile waiting for.

By use of higher quality materials, such as tubular steel and rivets, instead of the present "angle iron and stove bolt" construction, and through other improvements, farm equipment which would last much longer than present types might soon be on the market. While that might involve that repairing be done by experts, the speaker believed farmers would welcome having such mechanical work taken off their hands.

A trend was underway toward specialized tillage equipment so that a different machine would be used for each tillage operation, and also different tillage operations to suit each individual season. The cost of owning a large number of machines would be reduced somewhat by "tool bar" equipment (hydraulically, cable, or foot-controlled tools placed on the individual tractor), Mr. Denike thought. Such tool bar equipment would soon be on sale for average-sized farms, he predicted, although large scale operators probably would have to use the present multiple units for some time.

Specialized equipment was necessary, he believed, if the most was to be got out of the crop. That was another reason for being especially cautious about any equipment offered as a "cure all"—designed to do several

tillage operations at once. Wait till these new types are tested for your area by experimental stations, he advised.

A hydraulic clutch to slow the starting load, which is the greatest strain on a tractor, so that a smaller tractor can be used than at present; a variable speed knife on the cutting bar of the power mower so it will cut different types of grass more efficiently; and considerable use of quick drying equipment for valuable hay, were other probable improvements ahead, said Mr. Denike.

## Good Year Reported By Fidelity Life

The annual report of the Fidelity Life Assurance Company for the year 1945 indicates that the company experienced one of the most successful years in its 32 years of operation. Business in force has grown to \$13,236,237.00. New business in 1945 amounted to \$2,831,895.00, and total income of the company was almost a half-million dollars—an all-time high. Mortality experience was favorable, considering the war claims, and surplus funds showed substantial increases.

There was paid to policyholders and beneficiaries a total of \$129,770.00, over 60 per cent of this figure being paid to living policyholders. Assets of the company now exceed \$2,650,000.00, an all-time high, of which 69.5 per cent is invested in Dominion of Canada bonds.

The Toronto Exhibition will re-open in 1947, Mayor Saunders announces. The last annual fair was in 1941.



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Nevertheless, it costs money to survey new power sites, harness waterfalls, and build transmission lines, so that when you flick a switch or set a thermostat you can be sure of light and heat at your fingertips. Quite possibly a part of your own Life Insurance premium has been invested in the public utilities which render these services.

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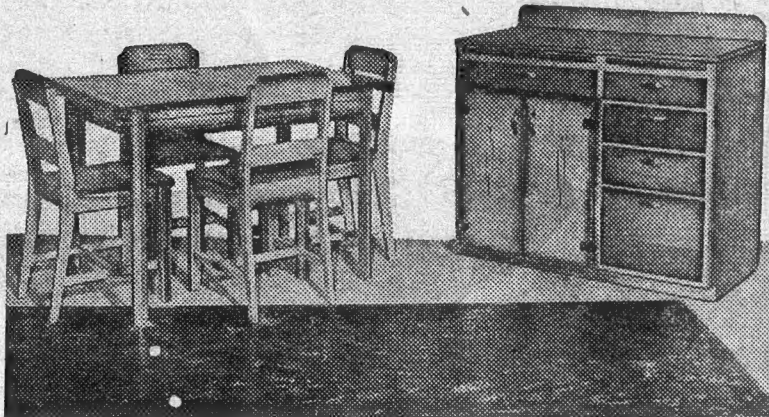
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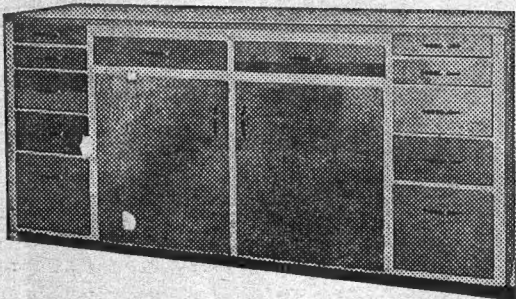
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## Kitchen Cabinet



Style No. K.C. 6

This beautiful Kitchen Cabinet contains every feature desired by the modern housewife. Built to rigid standards, 6' long, 36" high, 22" deep. Has baking board, cutting board, 1 cutlery drawer, 1 utensil drawer, 4 miscellaneous drawers, 2 drawers for flour and sugar, 2 linen drawers, recessed toe board, 2 cupboards.

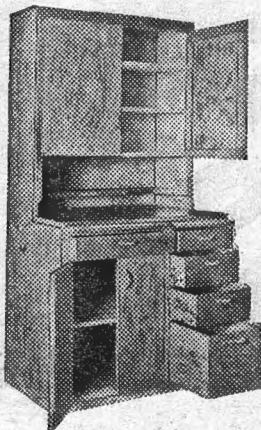
Color: White, black trim; primrose yellow, red trim.

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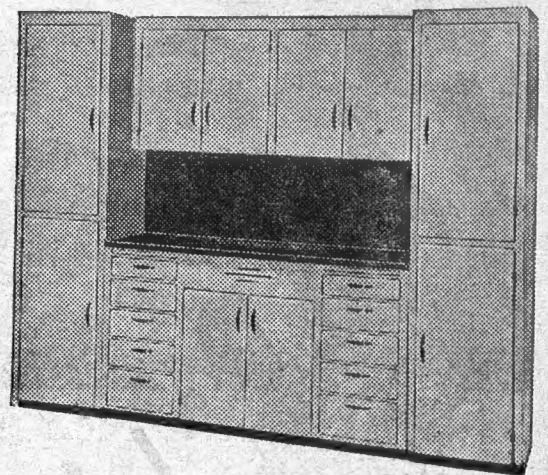
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THE price of gasoline has just gone up two cents a gallon, and when the federal government subsidy comes off it will go up some more. These price rises should make all gasoline users conscious of the handicap from which this country suffers because it lacks its own oil supply. Turner Valley has supplied this country for some years with cheap gasoline—as cheap as is obtainable in most parts where oil is produced. As long as Turner Valley produced enough to supply all our needs we were reasonably well taken care of at a good price.

Owing to the policies imposed by the oil controller during the war the search for oil in the West was retarded, and the production of oil in Turner Valley was cut down. Oil has had to be imported from the United States. The cost of that oil at prairie refinery is the purchase price at the point in the United States where it was produced plus the freight to the Canadian refinery.

No oil is available in the United States in the area close to Canada. It has to be hauled from Wyoming and Texas. The federal government has been paying the difference between the cost of Turner Valley oil and imported oil. At Regina this has run as high as \$1.40 a barrel on as much as 10,000 barrels a day.

This subsidy has recently been cut, but is still substantial. When it is removed the price of crude oil in Canada must go up to the price in Canada of imported American oil. This will increase the cost of gasoline to the prairie provinces. These facts surely make it clear that we ought to be doing more to find a supply of oil on the prairies.

Recently there has been perfected a process for making gasoline out of natural gas. A barrel of gasoline can be made by this process out of 15,000 cubic feet of natural gas. The cost will be about 6c a gallon for gasoline produced by this method if the gas can be bought for 4c a thousand.

It is because of this process that we have recently seen large foreign-owned companies coming into Alberta to lease large gas land areas. Under the filing regulations created by the Alberta government these companies can get control of large areas of government-owned mineral rights. They are busy taking these in great chunks. They now own the best and will soon own all of the known gas areas. The

# Editorial

ownership of gas is passing from the people of this province to these foreign companies which will have a monopoly on the supply of gasoline produced by the new method.

It is a great pity that the government of Alberta has developed a policy which permits foreign companies to get and keep in this province great areas of potential oil and gas land in circumstances which will create a monopoly on a substance as important as gasoline.

★ ★

NOT many people know that the bread they buy at 10c a loaf is based on wheat costing 77 $\frac{3}{4}$ c a bushel for the best grade at Fort William. The Canadian people are getting about as good bread as there is in the world at probably the cheapest price in the world. They should be made aware of that fact.

The export price of wheat, basis one northern at Fort William, is \$1.55 a bushel, that is 77 $\frac{3}{4}$ c more than the cost of bread to Canadian consumers. The government contributes 47 $\frac{1}{2}$  cents of that amount, paying the farmer \$1.25 for all wheat milled for domestic use. This is 30c a bushel less than the value of this wheat, so that the farmer is paying 30c a bushel for the wheat that makes bread for Canadians.

When the government inaugurated its price ceiling policy in the autumn of 1941, Canadian farmers accepted a subsidy program on the ground that it was a necessary part of total war. Now farmers fear that the policy will be carried into peace years and the consuming public will expect to be fed at prices substantially below farm costs.

If the Canadian people, with an annual income in excess of \$10 billion, cannot afford to pay more than 77 $\frac{3}{4}$ c a bushel for their bread, what is the outlook for the future? Will farmers ever be able to obtain a reasonable return for their production? Those are questions which are seriously agitating the minds of the farmers these days. As time goes on they are getting more and more concerned about the situation.

★ ★

WESTERN farmers are faced this year with a new urgent appeal for food production, a call to help prevent mass starvation in Europe where without generous aid in the next few months ten to fifteen million people will not eat enough to sustain life.

Prime Minister Atlee has cabled the governments of Canada, Australia and other exporting countries urging their assistance in solving Britain's foremost problem—finding food for her people.

United States is responding to the call of Europe's hunger by reducing the quality

of her bread, diverting wheat from industrial uses; a return to meat rationing is suggested.

Faced by the prospect of eating darker bread, a further reduced ration of cooking fats and less home-grown bacon, eggs and poultry, Britain will stimulate domestic production of foodstuffs in every possible way. Producer subsidies will be increased and 8,000 farm workers due for military service will be left on the land. Success of these measures will meet only a small part of the nation's requirements.

Canada is the best source of supply for three staples, wheat, beef and bacon. By clearing the carryover bins, the Dominion can ship 140,000,000 bushels of wheat, including flour, in the current crop year and a steady flow of meat products is leaving the eastern seaboard.

Despite Ottawa's recommendation that the 1946 wheat acreage should not be increased beyond the 23,414,100 seeded last year, it is quite possible that a somewhat larger acreage will go in this spring. Early moisture conditions are promising for a crop, the labor situation is improving and it is recognized that no other product equal in food value to wheat can be so easily shipped or stored. It would be unfortunate, however, to see any great increase in wheat acreage at the expense of coarse grains since these, particularly barley, are the basis of an export trade in finished meat products.

★ ★

NEWS of great importance to the welfare of the province comes from a number of Alberta towns. This tells of plans well advanced for the development of local industries, mainly in the field of food processing. Raymond and Picture Butte are firmly established on the industrial map with sugar beets and sugar factories, and the Brooks area is organizing for a similar enterprise. Lethbridge is to have a co-operative meat packing plant. The E.I.D. will have a vegetable cannery, and new creameries will serve several dairy farming localities.

There is room for many more plants, their size depending on local conditions, which will pack or otherwise process field vegetables, small fruits, cereal grains, poultry, dairy products, meats, wool and hides.

The expansion of irrigation and the intensive type of farming which it fosters provides a natural background for many industries close to the soil, industries which put good money in circulation in return for primary products and labor. Some of these projects will be financed locally by the patrons, others will represent large investments from outside; all of them deserve support for the prosperity which their successful operation will bring to the community.

## PLAN FOR THE FUTURE



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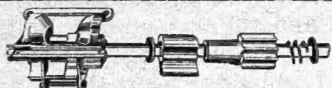
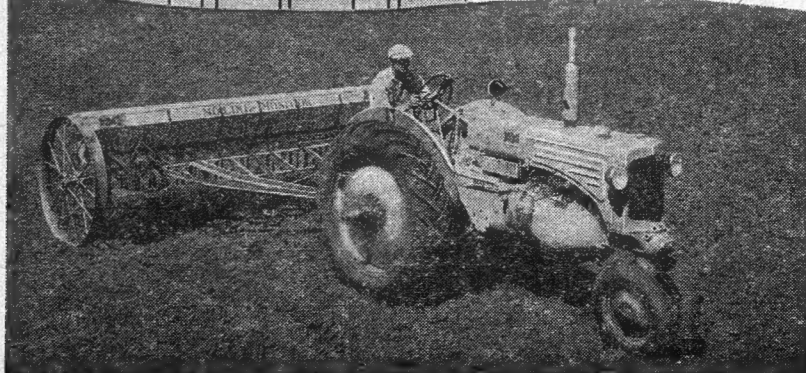
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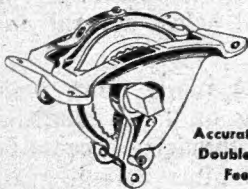
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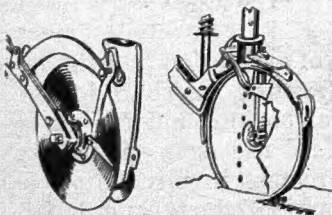
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## Machinery Being Reserved For Veterans on Farms

**D**URING the next two years of short supplies of farm machinery it is expected that veterans settling under the Veterans' Land Act will be enabled to get sufficient machinery to carry on, according to H. Allam, supervisor of the V.L.A. for the Alberta district. Thanks to early placing of orders, the V.L.A. officials in Alberta expect to have some \$1,250,000 worth of machinery for distribution to their settlers in the early spring. Orders already have been placed for machinery in 1947. It is hoped that use of these supplies, plus second-hand machinery which the veterans may wish to buy locally, will provide for requirements.

For veterans farming on their own account, not under the V.L.A., Mr. Allam said the machinery companies have agreed to reserve 30 per cent of their civilian supplies to be sold to holders of "priority slips" which are being issued by the V.L.A.

If a veteran signs an agreement under the Veterans' Land Act to settle on a certain piece of land he will have no second chance to take advantage of the Act, if, for example, he decides to move to a different farming district. To give a fair chance to a veteran who wishes to farm and is fully experienced, but who is still awaiting the arrival of his wife from overseas, the officials are making provision to buy his land and chattels for him and allow him to rent the first year with the option of buying at the end of the year. After his wife's arrival the couple can decide whether or not they wish to settle on that particular farm, and as they have signed no purchase agreement they still will have the opportunity of settling under the Act on another farm or in a different locality if they so desire.

### Sugar Beets in South

(Continued from page 3)

accruing to the district from the total tonnage of pulp. Beet molasses is another valuable feed but during war it has been used mainly for industrial purposes.

#### Livestock Essential

A few years ago commercial feeders were buying up most of the beet by-products cheaply and making money feeding cattle and sheep. One reason the beet grower did not do this himself was that he couldn't finance the purchase of feeders in the fall. That situation was changed about 1936 by the formation of a co-operative association, organized under the Provincial Guarantee Act, whose members could borrow up to \$4,000 for feeding purposes.

During the next six years, six of these co-operatives were organized, plus a seventh in which the members guarantee their own loan and have no maximum for each individual. These seven now are affiliated in the Lethbridge Central Feeders Associations, to avoid competition with each other in buying and selling. The association, managed by shrewd livestockman Charles O. Asplund, had a turnover of \$3 million last year and was responsible for some 40 per cent of the livestock which went into the feedlots in the irrigated area in the fall. It was estimated by Del Palmer, the assistant who showed me around, in Mr. Asplund's absence, that altogether 25,000 cattle and 110,000 lambs are being fed in the district this winter—about 90 per cent of them by beet growers.

It is not surprising that more and more beet growers are looking on livestock feeding as a vital part of their

operations. They have beet by-products, they have such feed as peavines or alfalfa hay from the legume crop in their rotations, and their soils cry out for manure to restore the organic matter drained out by the irrigated crops which yield several times the tonnages of dry land crops. The Scottsbluff experiment station, in Nebraska, has calculated a value for manure on sugar beet farms of \$3.72 when alfalfa was \$7 per ton, sugar beets \$6 per ton, oats 40 cents and potatoes 50 cents per bushel. At present prices, then, the value of manure should be about \$5 a ton. At that rate, the average beef animal fattened produced at least \$12 and each lamb about \$1.25 value of manure during this winter's feeding, on the basis of reliable calculations and experiments. In other words, the beet grower who invested \$4,000 in feeder livestock last fall would obtain about \$900 value of manure from them this winter, assuming the manure was used properly on the soil. It is safe to say that irrigation farming cannot be carried on permanently without a livestock feeding program. It is small wonder that the beet growers are worried about the future beef cattle market and are pleading with the federal government to negotiate for the re-opening of the United States market which may provide a permanent outlet for Canada's surplus beef.

Thus, beet growing—in itself profitable—is successfully combined in some cases with other row crops, especially canning vegetables; either or both of these crops, plus legume hays, are working in profitably with livestock feeding on a great many farms—and the manure, in turn, is valuable in maintaining the fertility of the soil. Producers' organizations, such as the Alberta Sugar Beet Growers, the Lethbridge Central Feeders Associations, and others, including the co-operative cannery at Coaldale and the expanding Southern Alberta Co-operative Vegetable Growers' Association, have played big roles in the success of these related enterprises. It gives some clue to the reason for the prosperity of the Lethbridge irrigated districts when we add up the gross values and find that \$6,155,000 worth of beets, canning crops, potatoes, fresh vegetables, beet tops and beet pulp alone were raised last year. That sum does not include the substantial profits from livestock feeding and the important value of restored soil fertility.

### New "Rescue" Wheat Is Sawfly Resistant

**S**IMPLIFIED sawfly control is heralded by the development of "Rescue", a new variety of sawfly-resistant wheat developed by A. W. Platt of the Dominion experimental farm, Swift Current, Sask. Licensing and distribution of this variety was approved on February 21 by a conference of agricultural scientists associated with the National Research Council.

Development of Rescue began 15 years ago. There now are 8,000 bushels of the prized wheat, which will be placed with selected growers this year, and it is expected there will be sufficient for general distribution in 1948.

Rescue wheat is deficient in bread-making qualities and will carry a grade no higher than No. 3 Manitoba Northern, but it was recommended for distribution because of the need of combating sawfly.

# Breeders' Notes

AMONG the coveted certificates awarded to Holstein breeders at their annual convention, "Class Extra" certificates—the highest award a Holstein bull can win—went to J. Grauer & Sons Ltd., Eburne, B.C., and Colony Farm, Essondale, B.C., owners of Colony Colanthus Perfection; to Central Experimental Farm, Ottawa, for its two bulls, Montvic Rag Apple Joe and Montvic Abbeckerk Posch Pabst; to Ecole Regionale d'Agriculture, St. Cesaire, Que., for Raymondale Bluejay; and to George A. Godfrey & Sons, North Wiltshire, P.E.I., owner of Falconwood King Bessie.

Alcartra Gerben, world champion yearly butterfat producer over all ages and breeds, brought the certificate of superior production to Hays Ltd. of Calgary, and Abegweit Milady, world champion 305-day butterfat producer over all ages and breeds, won a similar award for Premier Walter Jones, Charlottetown, P.E.I. Owners of Canadian championship record certificates included Hays Ltd., for Gerben Alcartra Wayne. Ted L. Townsend, Birtle, Man., owner of Spring Farm Bearli, received a 1,000-pound-butterfat-producer certificate.

Holstein registrations totalled 53,149 in 1945, an increase of three per cent over the previous year. Membership was 9,717, a gain of seven per cent. C. C. Haviland, Wiltonville, Ont., was elected president of the Holstein-Friesian Association of Canada for 1946.

1946 officers elected included first vice-president, W. H. Hicks, Agassiz, B.C.; and directors Harry Hays, Calgary; R. E. Stewart, Regina; J. E. Crawford, Winnipeg.

Directors of the Canadian Sheep Breeders' Association, elected at the annual meeting in Toronto, include: Manitoba—Robert M. Smith, Brandon; Saskatchewan—Joseph Moffat, Sintuluta; Alberta—A. Hildenbrand, Vauxhall; British Columbia—John Barker, Chilliwack.

Western Canadians elected as directors of the Canadian Red Poll Association, at the annual meeting in Toronto, were A. E. Johnston, Enderby, B.C.; John R. Atkinson, St. Albert, Alta.; T. H. Howes, Millet, Alta.; John Smith, Cabri, Sask.; Wilmott McComb, Hayfield, Man.; George Wilkinson, Portage La Prairie, Man.

Among 113 Jersey cows qualified in the R.O.P. in December, the four-year-old class was led by Sun Dance Sport's Toots, bred and owned by R. G. May, Calgary. She produced 11,650 pounds of milk, 672 pounds of fat. A British Columbia cow, Frasea Viscountess Journal, owned by Hugh Savage of Ladner, produced 10,900 pounds of milk, 604 pounds of fat, to lead the three-year-olds. In the two-year-old class, twice-a-day milking, Brandon Creamery and Supply Company's entry, Giant's Crocus Lady, led with 10,299 pounds of milk, 566 pounds of fat.

In 1945, a total of 12,133 Ayrshires were registered, an increase of 784 over 1944; 10,628 animals were transferred, an increase of 871; and 2,562 were exported, an increase of 531. The membership of the Canadian Ayrshire Breeders' Association now stands at 2,250, an increase of 129 over 1944. In registrations, Quebec led with 5,644 and Ontario came next with 4,826.

W. H. Grant, Foam Lake, Sask., was elected president of the Canadian Shorthorn Association at its February 15 annual meeting in Winnipeg. Second vice-president is N. G. Muirhead, Winnipeg. Directors from Manitoba are N. H. Muir, A. S. Fisher; Saskatchewan, W. A. Small, E. A. James, Roy Lobb; Alberta, John Cross, Geoffrey Thomas; British Columbia, Hugh C. Catt.

Benmore Lady, owned by Jas. O. Harvey, Millet, Alta., produced 6,901 pounds milk, 278 pounds fat, to lead the Shorthorns in the three-year-old, 305-day class of the R.O.P. in January.

Major J. H. Gainor, M.C., Calgary, was re-elected president; Miss Margaret McNeill and Jack Farish, both of Calgary, were named vice-president and honorary secretary-treasurer, respectively, of the Alberta Light Horse Association. W. Earle Robertson and J. J. Saucier were named a committee of two to plan for the affiliation of out-of-town branches with the main body.

G. F. Connell, Regina, was re-elected president of the Saskatchewan Cattle Breeders' Association at the annual meeting at Regina. J. A. Baskie, Whitehead, is vice-president; C. E. Beveridge, secretary, and Miss E. L. Ross, Regina, treasurer. New directors elected for the two-year term were D. A. Wotherspoon, Melville; C. Roy Wade, Asquith; Wilbur Catley, Craven; Ken Lennox, Gibbs, and George Truswell, Leney.

Holstein judge for the 1946 Calgary summer exhibition will be Harvey Swartz, Waukesha, Wisconsin, with A. J. Hay, Essondale, B.C., as alternate in case Mr. Swartz is unable to attend. For the Edmonton show, Francis Darcy, also of Waukesha, has been chosen as judge, with Victor Bjorkeland, Red Deer, as alternate. Officials of the Alberta Holstein Association for 1946 are honorary president, Dr. T. E. Hays, Calgary; president, George Gibbs, Edmonton; secretary and fieldman, J. W. Hosford, Edmonton.

The Saskatchewan Percheron Club at its annual meeting elected P. G. Fellows, Broadview, as president, with W. J. McCallum, Brownlee, vice-president and Jonathan Fox, Jr., Lloydminster, secretary.

Twenty-two sows from Western Canada qualified for advanced registration during the last four months of 1945. Eleven were in Alberta, two being owned by James Wyllie, Vegreville, and one each by W. J. Anderson, Sudden; Paul Churchward, Lloydminster; Dominion Experimental Farm, Lacombe; W. R. Eastwood, Menaik; W. H. Ferguson, Calgary; J. M. Henderson, Red Deer; Alex Kennedy, Sanguo; H. F. Rowe, Duffield; Thos. E. Standing, R.R. 2, Cochrane. Of seven from Manitoba, two were owned by the Dominion Experimental Farm, Brandon, and one each by R. G. Brewer, Ashville; M. J. W. Madge, Virden; Marcel Messe, Genthon; L. P. Norquay, Pigeon Bluff; Carl Roberts, St. Adolphe. The Dominion Experimental Farm, Melfort, Sask., had three and the Dominion Experimental Farm, Agassiz, B.C., owned one sow which qualified during this period.

One western boar qualified during July, August and September. He was bred by W. Frelan, Wilford, Stavelly, Alta., and owned by R. J. Ferguson, North Edmonton.



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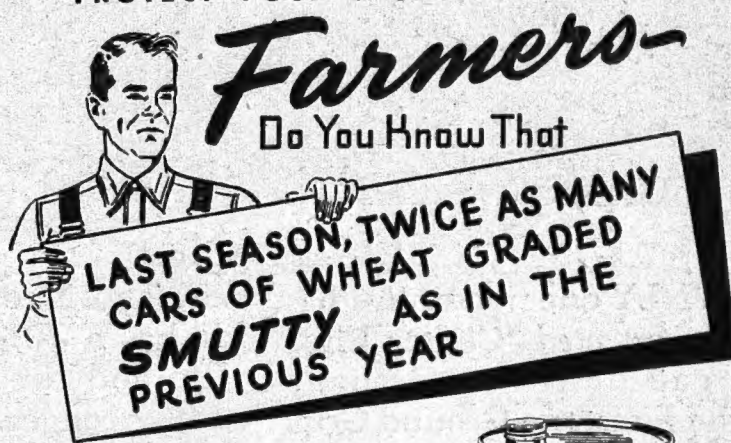
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## THE TIRES THAT PULL BETTER LONGER

## Growers Paying Heavily For Wheat Export Policy

Not only have Canadian wheat producers supplied the world with invaluable grain during the war and postwar food crises, but they have carried a large share of the cost of keeping down the price of bread in Canada and are sacrificing a substantial amount of money in accepting the present export price for wheat, L. D. Nesbitt, publicity director of the Alberta Wheat Pool, pointed out in the course of an interesting address, to the agricultural short course at Lethbridge, on wheat marketing during the war years and after.

"One feature of government policy which makes wheat producers uneasy," declared Mr. Nesbitt, "is the fixing of a wheat price for domestic consumption at 77¢ a bushel in 1942. Previously (in 1940) a processing tax of 15¢ a bushel was levied on all wheat for domestic consumption. Canadians consume around 50 million bushels a year, and this would mean a tax of \$7½ million. In 1941 this tax was discontinued to prevent a rise in the price of bread. Ever since, Canadians have been eating bread at bargain prices. Wheat for domestic consumption is sold to flour mills at a basic price of \$1.25 at the terminal. Then flour mills get a rebate of 47½¢. Since this policy has been in effect, government rebates to domestic consumers have totalled \$48,859,000.

"But that is not all the story. The present price of wheat for export is \$1.55 a bushel at the terminal while domestic consumers are still eating bread made from wheat costing them 77½¢ a bushel. Consequently, consumers are being bonussed at the rate of 77½¢ a bushel, of which 47½¢ is paid by the government and 30¢ contributed by the wheat producers.

"Pursuing the subject further, it should be understood that the bulk of wheat exports are being paid for by the Canadian government. Up until recent months, exports were under a mutual aid policy, Canada's version of 'lend lease,' which meant that the Canadian taxpayer footed the bill. Canadian wheat producers, probably 15 per cent. of the Dominion's population, made their contribution in the form of taxation thereto, as well as directly bonussing Canadian consumers at the rate of 30¢ a bushel, and contributing a proportionate share of the government's bonus to consumers of 47½¢ a bushel.

### Substantial Sacrifice

"But that is not all," the speaker continued, "an official publication issued by the U.S. department of agriculture showed the value of Canadian wheat for export at Fort William to be 37¢ less per bushel than export United States wheat of comparable quality at Duluth; so that it can be clearly seen that the prairie farmers are making a substantial sacrifice in accepting the \$1.55 export price.

"To offset the contribution prairie grain producers have been making, the government made such cash contributions as \$102 million for wheat acreage reduction, \$19 million under the Prairie Farm Income enactment, and cash contributions under the Prairie Farm Assistance Act. But the total of all this would not amount to 10¢ a bushel on wheat produced in the prairie provinces during the war years.

"Surprising to say, there has been no widespread protest by prairie farmers.

I believe the reason therefor is that the price control measures put into effect during the war years have been fairly effective. I would say here and now that prairie farmers will not remain passive in their attitude towards the present level of grain prices should there be a rise in the general price level. If the goods and services farmers must buy are going to rise in price, farmers are going to act vigorously to get better prices, not only for their wheat, oats, barley, rye and flax, but for their poultry, dairy and meat products. Canadians have been fed during the war years at prices cheaper than those prevailing in any large nation in the world."

The record of the carryovers during the war years was given by Mr. Nesbitt as follows:

1939	102,910,853 bushels
1940	300,473,465 "
1941	480,129,311 "
1942	423,752,337 "
1943	594,626,019 "
1944	356,531,079 "
1945	258,394,518 "

### Ready for Shipment

The speaker quoted George McIvor, chairman of the Canadian Wheat Board, who said in November: "Our wartime wheat position may be summarized by the statement that we reached our maximum stock position at the turning point of the war, and as the United Nations won through each successive stage of the war Canadian wheat was continuously available in large volume for prompt shipment. No other wheat exporting nation could achieve this position during the war, and consequently there has been a great reliance placed upon Canada in the greatest crisis in the world's history."

Arguing forcefully against any re-opening of the Winnipeg grain exchange, Mr. Nesbitt cited figures showing the large amounts of money, over and above the initial payments, eventually realized on these large stocks of wheat and paid out to the producers on their participation certificates — money which would have been realized by the speculators had the grain exchange remained open.

Wheat acreage tables quoted by Mr. Nesbitt show the reduction of Canada's wheat acreage after 1940, resulting from the government bonussing plan to curtail wheat seeding

1937	25.5 million acres
1938	25.9 " "
1939	26.7 " "
1940	28.7 " "
1941	21.8 " "
1942	21.5 " "
1943	17.5 " "
1944	23.2 " "
1945	23.4 " "

### NEW OAT VARIETY

A new variety has been produced by the central experimental farm at Ottawa which Dr. Newman, Dominion Cerealists, has named "Beaver." It is a cross between Erban and Vanguard and is noted in particular for its resistance to stem and leaf rust. A farmer in the VanLeek Hill district of Ontario planted three acres of this new variety of oats and obtained therefrom 200 bushels which he has disposed of at \$1.50 a bushel.

Trade Minister MacKinnon announced in Ottawa the appointment of J. H. Tremblay, from 1930 to 1936 bilingual district agriculturist for the agriculture department in Alberta, as an agricultural trade commissioner abroad.



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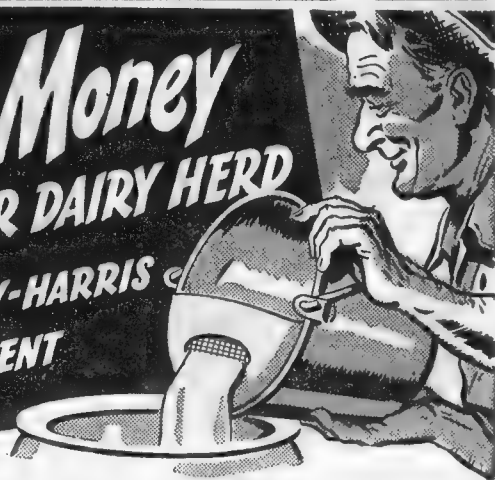
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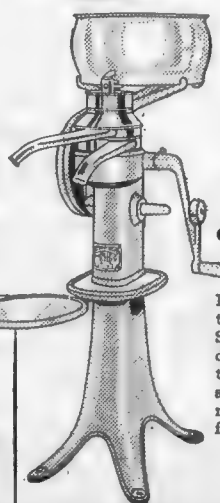
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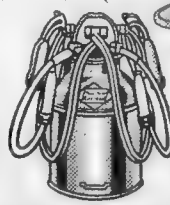
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VANCOUVER

## Advance Plans to Build Co-operative Packing Plant

By C. FRANK STEELE

A TOTAL of \$9,000,000 worth of cattle and hogs were marketed in 1945 on the Lethbridge railway division. Instead of this volume of livestock being shipped out to distant market centres it is the plan of a large body of growers to establish a co-operative meat packing plant at Lethbridge providing a market at home.

This is the Lethbridge Co-operative Packers Ltd., incorporated last year under the Alberta Co-operative Marketing Act and fully organized. It is the belief of the directors that the plant can be put into operation this year and they are launching a share sales campaign with that in view.

Speaking recently at a packing plant meeting at the Barrhill school, W. W. Scott, recently named a director, stated that the trend in the packing industry in the United States is de-centralization, smaller plants located in the centre of production. "Our method of marketing livestock in this region is out-moded, the proposed packing plant at Lethbridge will provide a market right at home for our finished animals. We'll eliminate the loss in shipping," he said.

Just how pronounced the trend to smaller units is in the U.S. is shown by the fact that 11 small, co-operative plants costing up to \$100,000 each have been built in Illinois alone in recent years.

The projected Lethbridge plant would have a capacity of 350 hogs and 75 to 100 cattle daily. Hogs and cattle would be handled on alternating days.

Rulon Dahl, Raymond, is president of the new co-operative; "Steve" Houlton of Lethbridge, manager of the Smith Farms, is vice-president; C. O. Asplund, supervisor of the Lethbridge Central Feeders' Association, is secretary-treasurer and A. W. Stringam of Nemiskam, L. E. Pharis of Magrath, George Ross of St. Kilda, W. S. Johnson of Barnwell, and W. W. Scott, Lethbridge are members of the board of directors. The head office is in Lethbridge and shares are being sold at \$50, the organization itself handling the sale of share memberships.

At the recent annual meeting of the company reports were submitted showing that definite progress had been made in securing a site on trackage at Lethbridge. The plan is to build a complete packing unit costing around \$125,000, the plan favored being one obtained at Portland, Ore., by a committee of directors who inspected plants on the Pacific coast last fall. It is believed that a small, compact and efficiently managed plant such as is proposed will meet the needs of this region.

In addition to revenue derived from the sale of shares it is announced that the directors have been in contact with the Industrial Development branch of the Bank of Canada and that the industry could be financed up to 50 per cent through that body.

One hundred and seventy or more paid-up shareholders are on the books and the co-operative has over \$16,000 in capital subscribed. This is held in the bank or in Dominion of Canada bonds.

The original price of the shares was \$100, but this figure was reduced in order to encourage more farmers to get into the enterprise. The costs of the

plant have also been revised since the organization was launched. In the early stages of the scheme a half million dollar plant was projected. This has now been cut down to \$125,000 in line with the Oregon City plant which, it is planned, will be duplicated here.

"You see smaller plants are much more economical to build and operate. The old elaborate coil system of cool-



PRESIDENT RULON DAHL

ing is now out. In a plant at Billings, Mont., which we inspected the entire system cost only \$7,500. That is one reason we can lower our sights on the cost of the Lethbridge plant and still have a completely modern and efficient unit," said President Dahl.

Mr. Dahl told shareholders at the recent meeting that a packing house will be built in Lethbridge even if Lethbridge Co-operative Packers do not go ahead with their plans, which he felt was a remote possibility indeed judging by the interest through the farming areas.

The labor unrest in the great industrial centres is driving industry into the smaller centres near the source of production, said Mr. Asplund, the supervisor, and that is why "we have every assurance Lethbridge will get a plant."

There is only one co-operative meat packing plant in Canada, located at Barrie, Ont., and its success has encouraged Southern Alberta producers, feeders and others interested to go ahead with the present scheme.

Opportunities for barter with the powerful Scottish and English Co-operative Societies are not being overlooked, a phase of the marketing end that will be followed up.

• • •

### Davidson Holsteins Set High Average

A total of \$19,320, for the excellent general average of \$439.09, was realized on the sale of 44 head of purebred Holsteins at Guelph, Ont., on Feb. 18, when the "Beverly" herd of the late A. J. Davidson, Edmonton, was sold at auction. This herd, one of the best in Alberta, was shipped down to Guelph to be dispersed.

Beverly Wayne Ardith, a second-prize winner at Calgary Exhibition, went to Glenn L. Bancroft, Flint, Mich., at a high figure of \$1,800. Bancroft bought eight head for a total of \$5,135, these including a pair of three-year-olds at \$800, and \$700, a six-year-old at \$600, and a heifer calf at \$500.

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### FAT CATTLE AND FEMALE SHOW AND SALES

Monday, March 18, at 2:30 p.m. A selected entry representing the three beef breeds from prominent Alberta breeders.

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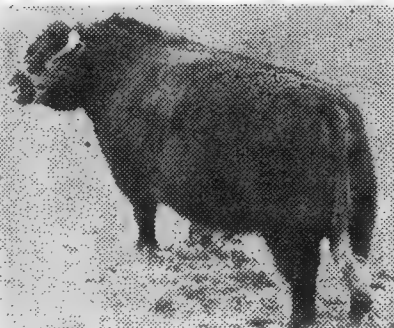
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## Record 1141 Entries Listed For 46th Calgary Bull Sale

OFFICERS and directors of the Alberta Cattle Breeders' Association, preparing for the 46th annual Calgary Bull Sale, announce that this year's entry list of purebred bulls is the largest in the long history of the event. Contributors have entered a total of 1,141 animals, comprising 759 Herefords, 217 Shorthorns and 165 Aberdeen-Angus. Last year, 799 bulls passed through the sale ring for a total of \$364,845. Since its inception in 1901, this annual sale has disposed of 18,944 bulls for a grand total of \$3,776,845.

In view of the exceptionally heavy entry promised for this year's sale, contributors are being advised by the management not to bring in animals which are in any way defective or which are not outstandingly good representatives of the breed. A culling committee at the grounds will weed out any inferior animals and send them to the stockyards.

Boys' and girls' baby beef classes have brought a list of 47 good calves, 21 of which are Shorthorns, 18 Herefords and 8 Aberdeen-Angus. In addition, 30 single fat animals are entered for the fat stock classes, and some 80 selected purebred beef females are being offered for sale.

Baby beef and fat stock classes will be judged on Monday, March 18, and these entries along with the females will be sold that afternoon. All bulls will be judged Tuesday morning, and the sale, starting with Herefords, will commence that afternoon.

In all, 1,988 horses have been entered for the annual spring horse sale to be held March 5, 6 and 7. Contributors to this event have also been warned that there is a good market only for animals that are well broken and well fitted and conditioned. It is believed that there will be some demand for heavier horses for woods work, and a number of eastern buyers are expected to attend.

## E. I. Clarke Heads Edmonton Fair Board

E. I. Clarke, well-known livestock breeder, has been elected president of Edmonton Exhibition Association, succeeding Lee S. Williams, who occupied the chair during the past three years, when the organization was carried on most successfully through very trying times. R. V. Price is vice-president.

Members of the executive are: Ald. Bisset, Ald. Mitchell, James Paul, Namao; W. C. Bissell, Viking, and Carl Berg; Dr. G. M. Malmas, veterinarian; Thomas E. Gardside, solicitor.

## REVIVE INTERNATIONAL

America's largest livestock show—the International Livestock Exposition—will be held November 30 to December 7, 1946, after a wartime lapse of four years. The last exposition, held in 1941, closed the night before Pearl Harbor, and the show's directors voted several months later to suspend the exposition for the duration of the war.

Three honorable mentions were won by Hays Ltd., Calgary, in the annual All-Canadian contest for Holsteins: Gerben Alcartra Wayne in the four-year-old class; Hays' Hayden Ruth in the heifer calf class; Beverly Marma Wayne in the class for senior yearling bulls.

## 453 ENTRIES FOR KAMLOOPS SPRING SALE

Rigidly-culled bulls consisting of 95 Herefords, 30 Shorthorns and three Aberdeen-Angus will be offered at the Kamloops bull sale on March 14. On March 13, a total of 325 grain-fitted beef animals of the quality for which this sale is famous, will be auctioned. All the livestock will be judged by Prof. J. W. G. MacEwan, of the University of Saskatchewan. Auctioneers will be Mat. Hassen and Son, Armstrong, and J. W. Durno, Calgary.

## CREAMERY FOR BROOKS

A new creamery that may be completed by spring will be built in Brooks by the Southern Alberta Dairy Pool to serve a large area of the Eastern Irrigation District and a considerable adjacent territory.

## Edmonton Show April 9 - 11

Edmonton Exhibition directors and officials are completing arrangements for three important events on their spring calendar. A heavy entry list is expected for the auction sale of draft and farm horses and pure-bred mares to be held at the exhibition grounds on Tuesday, March 26. Entries close March 25.

Entries will close on March 9 for the sale of registered bred sows which will be held on April 10.

April 9-10-11 have been selected as dates for the annual spring livestock show. Entries for the fat stock show and sale and junior calf-feeding competitions will close on March 23. Entry forms, catalogues and other information is available to prospective exhibitors or buyers at the exhibition office at the Arena.

## Advocate Specialized Prairie Farm Horse

THE animal husbandry department of the University of Saskatchewan has a program planned to develop a breed of horses which will be suitable to the needs of prairie farmers. While it is recognized that the horse is on the wane, the department maintains that a utility type team will always be useful around the average mixed farm. It plans to propagate middle-weight horses, clean limbed, chestnut in color, full of action, toughness and fertility, and above all, versatile.

The type desired is 15.3 hands in height and 1,500 pounds in weight. A team of mares of this type has been found in a cross between Clydesdale-Hackney stock. Professor Grant MacEwan of the department says there are still a good many jobs on the farm that can be done only by horses.

## Edmonton Exhibition HORSE SALE March 26th EXHIBITION GROUNDS

Entries for Auction Sale of Draft and Farm Horses and Purebred Mares  
Close March 25th.

## BULL SALE APRIL 11th Bull Sale Entries Close March 9th.

Sale of Registered Bred Sows, April 10  
Entries close March 9.

## SPRING SHOW DATES

APRIL 9 - 10 - 11

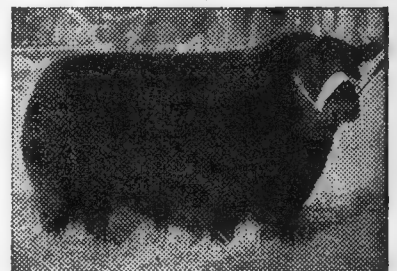
Entries for Fat Stock Show and Sale and Junior Calf Feeding Competitions close March 23rd.

For complete information, Entry Forms and Bull Sale Catalogue write:

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# Canadian Farm Delegation Will Attend World Parley

ALL sections of the Dominion are represented in the delegation which has been chosen by the Canadian Federation of Agriculture to attend the international conference of farm organizations to be held in London, England, for ten days starting May 21 next.

The conference is an outgrowth of negotiations which have been under way since the visit of the British farmers' delegation to Canada last spring. All United Nations which have national farm organizations have been invited to send delegates. The basis of deliberations at the conference will be the constitution for a permanent organization of primary producers to be set up as an international federation of agriculture whose activities will be co-ordinated with the United Nations' food and agriculture organization.

The delegation which will represent the Canadian Federation of Agriculture, selected at its recent annual convention at London, Ontario, is as follows:

H. H. Hannam, president; W. J. Parker, Winnipeg, and J. A. Marion, Montreal, vice-presidents; R. J. Scott, Belgrave, Ontario; J. H. Wesson, Regina; Alex Mercer, Vancouver; Ben S. Plumer, Calgary; W. H. McEwen, Moncton, N.B.; Percy French, Vernon, B.C.; R. S. Law, Winnipeg; R. H. M. Bailey, Edmonton; with C. G. Groff, secretary of the Federation, as secretary of the delegation.

Many matters of vital importance to agriculture in Canada were dealt with at the annual convention. Of over-all importance was the resolution respecting equity and security in farm prices. This resolution, following the line taken by President Hannam, in his annual address, expressed the concern of farmers respecting the future position of prices and laid down the principle that the farmer's basic price should be considered to be the total of price plus subsidies. Upon this basis the resolution urged upon the federal government the establishment and maintenance of equality for agriculture in a balanced national economy as a fundamental part of Canada's fiscal policy. Other resolutions dealt with the following subjects:

**Farm Income Tax:** Requesting particular attention to a number of inequalities in the application of the present income tax act to farmers, and requesting also the setting up of an arbitration board as a simple and inexpensive means of adjusting disputes.

**Sale of Surplus War Assets:** Requesting continuation of the present policy of sales of trucks direct to farmers, and an expansion of the policy to include other materials of use to agriculture.

**Dominion Marketing Act:** Repeating former requests for enactment of a suitable Dominion marketing act.

**Dairy Products:** Recommendations from the Dairy Farmers of Canada for a four-cent increase in the floor price of butter and for increased returns to enable farmers to compete suitably with industry for labor necessary on the farms.

**Revision of Federal Hog Policy:** Asking for a revision of the hog policy providing for an upward adjustment of the price of bacon hogs, a broad program of research and experimentation in breeding and disease control, development of export markets, and

from Britain, more rigid control over packing companies.

**Livestock Policies:** Resolutions asking for development of a long-term livestock production policy, with floor prices for five years; export of surplus cattle to the U.S.; an investigation of the spread in meat prices; and repetition of the demand for a board of livestock commissioners.

**Soil Conservation:** Requesting a national soil conservation policy to extend the benefits of the P.F.R.A. act to all provinces, particularly to assist in purchase of power equipment for surface and under-drainage work on farms and assistance for restoration of dykelands and for special drainage projects.

**Resolutions on Wheat:** Asking that the Canadian Wheat Board be the sole agency for marketing all cereal crops; asking for an initial payment of \$1 per bushel on wheat instead of the 90c now included in the Wheat Board Act; that the initial price for 1946 wheat be not less than \$1.25 per bushel; that the government give aggressive leadership in working out an international wheat agreement to include national quotas to fit supply to demand, minimum prices to protect the producer, maximum prices to protect the consumer; that the principle of quota deliveries from farm to elevator be retained.

**Malting Barley:** Asking for a correction of the present barley price situation which deprives those who have developed special grades of malting barley from securing full benefit of returns for such barley.

**Tax on Malt:** Asking that the present excise tax on malt be transferred to beer.

**Millers' Drawback on Wheat:** Asking for an adjustment of the inequity to producers existing as a result of the drawback permitted millers in the purchase of wheat for milling.

**Crop Insurance:** Urging the necessity of a crop insurance scheme the administration of which to be financed by the federal and provincial governments.

**Farm Labor:** Asking continuance this year of the farm labor service of the federal and provincial governments; urging the necessity of higher returns to farmers to permit them to secure the farm labor necessary to carry out the production program.

**Indian Welfare:** Urging improvement of conditions among the Indians of Canada, particularly with respect to improved educational facilities, provision for old age pensions and other matters.

**Old Age Pensions:** Recommending pensions for all citizens of 65, irrespective of the pensioner's financial position.

**Pensions for the Blind:** Urging provision of pensions for the blind at the first moment they are required, without any period of domicile or other conditions.

**Gasoline Tax:** Asking removal of the federal tax on gasoline used for agricultural purposes in tractors.

**Farmers' Holiday:** Asking establishment of June 24 as a national farmers' holiday.

**Salaries of Civil Service Workers in Agriculture:** Urging improvement of the salary conditions of agricultural workers in both federal and provincial civil services.

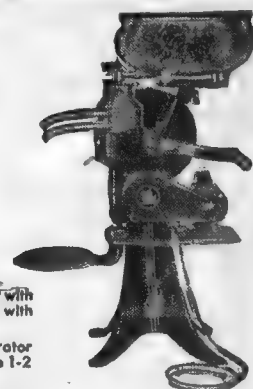
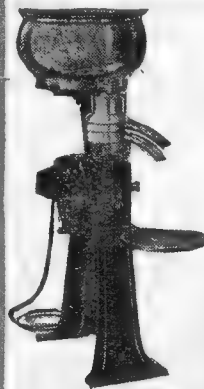
Saskatchewan money production in 1945 led that of all other Canadian provinces. An output of 7,328,000 pounds was valued at \$1,253,133.

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OR MANY



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## Use of Grasses in Crop Rotation Plan Restores Soil Fertility, Controls Weeds

By R. H. ANDERSON

Dominion Experimental Station,  
Melfort, Sask.

**G**ROWING of grasses and legumes is an essential part of the farm program in North-eastern Saskatchewan and this should be one of the most important features on every farm. The beneficial effects from grasses and legumes included in crop rotations is becoming more evident as the soil fibre disappears, the fertility becomes depleted, the weed problem increases and production costs become greater.

Results of experiments on the illustration stations definitely prove that the alternating mixtures of grasses and legumes with grain crops and periodic summerfallow gives greater yields than alternating grain and summer-fallow. Over a nine-year period at one station wheat after fallow in a straight grain rotation has given an average yield of 23.5 bushels per acre while wheat after forage crops in a rotation without fallow has yielded 26.8 bushels per acre. Forage crop mixtures add fibre to the soil and in turn help to maintain and improve fertility and soil structure, all of which are important in the control of soil erosion, increased production and water-holding capacity.

Crop rotations which include grasses and legumes are an aid in controlling many of the most troublesome annual and perennial weeds. More effective control is obtained where the land is left in sod for more than one year and the growing of two or more crops reduces cultivation and most production costs. Forage crops in rotation also reduce the necessity of frequent summer-fallowing. A mixture of alfalfa and brome grass seeded down for two or more years in rotations has eradicated Canada thistle and has materially reduced wild oat infestations.

Farm planning is simplified once a good rotation is established. The length and type of rotation to be established depends on many factors such as soil fertility, soil erosion, weeds and power available. Further information on grasses and legumes in rotations for your own specific area may be obtained from the nearest Dominion Experimental Farm or Station.

...

### Big Irrigation Plan Considered Feasible

Construction of a dam on the South Saskatchewan river near Elbow as the hub of a great power and irrigation scheme for Saskatchewan now is considered feasible, E. L. Gray of the P.F.R.A. said recently at Regina.

Extensive drilling and surveys had located a site where a giant dam could be built at the upper reaches of the Qu'Appelle and Saskatchewan rivers near Elbow. The cost could be anywhere between \$3 million and \$30 million, he said. Such a project also would generate more than twice the province's present total power production.

...

Prof. J. S. Shoemaker, of the Department of Horticulture at the University of Alberta, has accepted an appointment as professor of horticulture and head of that department at the Ontario Agricultural College, Guelph.

### IMPORTANT DATES ON THE CALENDAR

- March 5 — Alberta Horse Breeders' Association annual meeting, Calgary.
- March 5 - 7 — Horse sale, Calgary.
- March 7 — Horse sale, Brandon.
- March 9 — Horse sale, Red Deer.
- March 12 - 14 — Bull sale and fat stock show, Kamloops.
- March 12 - 15 — Horse sale, Lacombe.
- March 15 — Alberta Junior Seed Fair, Olds, Alta.
- March 18 - 22 — Calgary bull sale and fat stock show.
- March 18 — Alberta Aberdeen-Angus Breeders' annual meeting, Calgary.
- March 19 — Alberta Cattle Breeders' Association annual meeting, Calgary.
- March 21 — Canadian Aberdeen-Angus Association annual meeting, Calgary.
- March 26 — Horse sale, Edmonton.
- March 27 — Bred sow sale, Regina.
- March 27 - 29 — Regina bull sale.
- April 2 - 4 — Manitoba winter fair, bull sale, horse show, poultry show, seed fair, fat stock show, Brandon.
- April 5 — Horse sale, Saskatoon.
- April 9 - 11 — Edmonton bull sale and fat stock show.
- April 24 - 27 — Light horse show, Regina.
- May 1 - 4 — Light horse show, Calgary.
- May 7-11 — Light horse show, Edmonton.
- May 20-21 — Breeding and fat cattle sale, North Battleford.
- May 31-June 1 — Saskatoon fat stock show and sale.
- June 7 - 8 — Fat stock show and bull sale, Prince Albert.

...

### Strength of Shells Is Important Egg Factor

**T**HE importance of trying in every way possible to improve the quality of shell strength is shown in the fact that the greatest single loss factor in exports to Britain of shell eggs has been that of breakage.

Shell strength, like egg numbers, is affected by so many factors such as feeding and environment, that it is difficult to determine the exact influence of heredity. However, enough information is available to show that shell strength is very important and can be used to improve the general level of poultry flocks by helping to obtain: 1. Improved hatchability; 2. Lower chick mortality; 3. Fewer culls in rearing; 4. Lower adult mortality; 5. Greater egg production; 6. Improved egg quality.

The specific gravity test applied to eggs for incubation has been largely used to date for this work, and will satisfy the small flock owner. The salt solution should be made up to a strength that will eliminate, by floating, approximately 15 per cent of eggs tested. Care should be taken to see that eggs are well rinsed off in lukewarm water after testing.

At the Kentville, N.S., Station, an apparatus has been devised, known as a penetrometer, which directly determines the shell strength, but this apparatus has not yet been commercialized.

...

In the United States a farm worker's income tax is not deducted at the source and each worker is held responsible for paying his own tax.

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- ★ EARLY PLANTING
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Each unit broods successfully up to 150 chicks 6 to 8 weeks on as little as one gallon a week of kerosene. You can brood as many chicks as you desire by having more than one unit.

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It's the lowest cost system we know of! No getting up at night to see if chicks are warm! Safe! Sanitary—no more crowding and piling up! Built at home quickly, easily from simple plans any 15-year-old boy can understand, using scrap lumber, old packing cases, or new lumber if desired. Plans and heating system furnished for just \$4.75 postpaid. Investigate this astonishing invention now—before your chicks arrive! We ship prepaid and handle all custom details.

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## Precaution Must Be Taken to Keep Restricted Areas Free of Tuberculosis

**F**ARMERS and others residing in Restricted Areas find it necessary from time to time to bring in cattle from districts where testing for tuberculosis has not been undertaken. Most farmers in a Restricted Area know that before bringing cattle into the district, a permit from a veterinary inspector must be obtained.

There are some, however, who seem to disregard this important requirement, which later results in a great deal of inconvenience both to themselves and to the Dominion Health of Animals Branch. To avoid this, new purchases of untested cattle should be tested for T.B. before their removal into a Tuberculosis Restricted Area. An exception is made in connection with steers or heifers of feeder type, which must be accompanied on entering the district by a license signed by a veterinary inspector, and must be isolated from other cattle and tuberculin tested by a veterinary inspector on arrival at their destination. A permit only is required to bring in cattle which were tested in other districts.

For T.B. test and permit, application should be made to the Veterinary Inspector, Dominion Health of Animals Branch, Public Building, Calgary; or to the Post Office Building, South Edmonton. This service is free of charge. When applying for permit, name and address of original owner should be given, as well as ear tag numbers of all cattle to be moved.

Before bringing cattle into any Tuberculosis Restricted Area, other than to an approved slaughterhouse for immediate slaughter, it is the responsibility of the trucker to make sure that he received from the purchaser of the cattle a permit or certificate signed by a veterinary inspector to the effect that such cattle may legally enter the area. Posters have been supplied by the Livestock Branch to be displayed at all roads leading into Restricted Areas in an endeavour to mark the boundaries. Since a truck driver is expected to be familiar with the rules and regulations pertaining to Restricted Areas no excuse of ignorance can be accepted, authorities point out.

Tuberculosis Restricted Areas in Alberta include: M. D. Starland, No. 47; M. D. Stettler, No. 54; M. D. Camrose, No. 63; M. D. Lamont, No. 82, and M. D. Strathcona, No. 83. Truckers not familiar with the regulations should enquire from the secretary of any of these municipalities before trucking cattle into the area.

C. C. Dunham, Fairlight, was elected president of the Saskatchewan Clydesdale Club. J. K. L. McLeish, Moosomin, was chosen vice-president. Peter Taylor is secretary-treasurer. Robert Sinton, Regina, and Mrs. Stutt were elected honorary officers. Directors are Smith Stein, Arcola; Mrs. K. B. Taylor, Arcola; A. Linton, Tuxford; W. Campbell, Findlater; A. C. Leslie, Watrous; Jack Stutt, Vandura; C. C. T. Robertson, Bradwell; Wm. Fleming, Drinkwater; David Murray, Young; W. H. Gibson, Indian Head.

The pheasant hatchery at Brooks will be doubled in size. Last year about 4,000 pheasant hatched at Brooks were distributed through the province. The new plant capacity will be 12,000 eggs annually.

## Milk Production Costs Important

**C**OST of milk production is always of interest. At the Lethbridge experimental station an accurate record is kept of all the feed required both for the dry period and the actual milking period of the cows in the herd. During 1945 the average feed cost for producing 100 pounds of milk was 74 cents, and the average feed cost for each pound of butterfat produced was 20 cents.

This was based on current values of the feed used and was slightly higher than in the previous year. To this must be added the feed cost of maintaining the herd sires and developing calves and young stock.

It becomes evident then that the cost of feed becomes an important item in total cost of milk produced. Therefore, any cow that is not producing a liberal amount of milk cannot be expected to pay for feed and other costs. The greater the amount of milk produced by a cow, the less will be the cost per 100 pounds.

## Good Overseas Demand For Wool Likely

A recent report from Bradford, England, to Canadian Co-operative Wool Growers Ltd., emphasizes the fact that "the only limiting factor to increased consumption in this country and most parts of Continental Europe will be the rate at which workers become available for industry as the potential demand for wool goods is regarded as larger than available resources are likely to satisfy for some years to come."

In Britain, wool workers are returning to the industry at a rate of about 500 per week and, though there is a simultaneous retirement of older workers, there can be no doubt that the rate of wool consumption in the United Kingdom is moving ahead. The next few months may well see the volume of wool passing thorough British machinery at a point unequalled since the early months of the war. There are still serious shortages in the British clothing position but, along with the satisfaction of these, will go increased allocations to export trade.

France, Belgium, Holland and Italy all are planning substantial wool import programs. France alone may well import up to a million bales during the current year, says the report, and there seems little doubt that Continental Europe's wool consumption will increase sharply as soon as a seasonal fuel shortage is sufficiently eased to permit normal operation of plants.

## Dogs May Infect Sheep With Parasites

**K**EEP dogs out of sheep pastures is a suggestion offered by veterinary authorities to sheep raisers. The reason is that dogs are frequently carriers of tapeworms and can bring the worm eggs into pastures, where they will be picked up by grazing sheep.

Recently at one place in the United States, 164 sheep out of 429 were condemned by government meat inspectors because of tapeworm cysts. In checking, it was found that the infestation had been carried to the sheep pasture by dogs.

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STOPS LOSS FROM Warble Flies

KILLS grubs beneath the hide. Easy method—just treat the swollen parts with WAR-BICIDE solution!

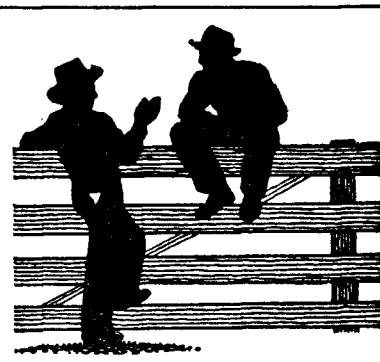
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**JERSEY CATTLE CLUB**  
749 YONGE ST. — TORONTO

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## News Items of Interest

**I**N a majority judgment of the Supreme Court of Canada handed down on February 20 it was held that the federal government has the power to deport between 10,000 and 15,000 of the 24,000 Japanese in Canada. A minority judgment by two members of the court held that the government has authority to deport Japanese nationals, British subjects of Japanese origin and Canadian-born Japanese who requested they be sent to Japan but has not authority to deport the wives and children of men in these three classes.

The 25,000 army and 10,000 air force troops comprising the Canadian occupation force in Germany will be withdrawn commencing the end of March, according to Ottawa announcements.

The Queen Elizabeth sailed from England on February 15, with 10,000 Canadian soldiers and airmen on board, on her last trip before she will be refitted for luxury civilian travel.

The Canadian Army's "Muskox" expedition, testing equipment, gathering climatic, navigational and other data, left Churchill, Man., in February, on a 3,130-mile semi-circular trek leading northwesterly through Arctic wastes then southwesterly to end up in Edmonton in mid-May. It consisted of 42 Canadian soldiers and civilian scientists, together with one British and five United States observers.

Control of Gander and Botwood air bases in Newfoundland, built and used extensively by the R.C.A.F. during the war, is to be returned to Newfoundland. The Goose Bay airport, in Labrador, was leased to Canada for military purposes for 99 years in an agreement reached some time ago.

United Nations security council in London adjourned after thus handling four major issues: (1) agreed to allow Russia and Iran to settle by direct negotiation the Azerbaijan disagreement; (2) issued a non-committal statement that the case had been heard and the matter was closed, concerning Russia's protest against the presence of British troops in Greece; (3) rejected Soviet Ukraine charges that British forces in Indonesia endangered world peace; (4) voted for the U. S. proposal that direct negotiations be permitted between the countries concerned, to settle the demand by Syria and Lebanon that French and British troops be withdrawn—this proposal then was vetoed by Russia.

U.S. Secretary of Interior Ickes resigned, bitterly attacking President Truman for continued support of Edward W. Pauley for assistant secretary of the Navy. Ickes had testified that Pauley, a California oilman, had suggested oil concessions by the federal government in return for donations to Democratic party funds by oil interests.

The United States steel strike ended mid-February with 18½ cents hourly increases to the 750,000 workers and with a \$5 per ton increase in steel price, after President Truman announced a higher wage-price policy. Many lesser strikes were settled on a similar basis, but the work stoppage of 175,000 General Motors employees continued.

British naval forces quelled an Indian Navy revolt in Bombay harbor, but civilian disturbances continued in

Bombay, as India seethed with political unrest combined with threatening famine.

A Russian spy ring within Canada was uncovered. Two supreme court justices were appointed to a royal commission to investigate its far-reaching operations.

Lt.-Gen. Yamashita, commander of Japanese forces guilty of wholesale atrocities, was hanged as a war criminal February 23.

### 1945 Butter Output Reduced 2 Per Cent

**P**RODUCTION of creamery butter in 1945 in Canada amounted to 293,541,000 pounds, a decline of nearly two per cent from the 1944 output of 298,777,000 pounds, the Dominion Bureau of Statistics reports. Production of cheddar cheese increased 2.5 per

cent to 184,452,000 pounds from 180,007,000 in 1944.

Combined output of concentrated milk products in 1945 totalled 300,439,000 pounds compared with 281,385,000 pounds in 1944. Whole-milk products increased to 245,231,000 pounds from 234,753,000 in 1944 and milk by-products were 54,591,000 pounds against 45,645,000.

### Veterans Land Act Provisions Clarified

H Allam, Edmonton, district superintendent for Alberta of the Dominion Veterans' Land Act, has pointed out that one sentence contained in the article, "Weather Delays Placing Veterans on New Farms", contained in the January issue of the FARM AND RANCH REVIEW, may have left a misleading impression. The sentence was "He obtains clear title to the land after 10 years of living up to his agreement" which should have read "He may ob-

tain title after 10 years if he completes the agreement".

"To obtain the subsidy under the act, the veteran must live on the land for 10 years," Mr. Allam explains. "If he pays off before, he must still wait 10 years for title. If at the end of 10 years he still owes on the contract, which can run for 25 years, no title can be issued until full payment has been made."

### A CARELESS PEST

Even when a crop is snug in a good stack or barn, there remains the risk of fire caused by "a careless smoker" who can be classed as a pest. This pest has no season. It appears at any time of the year and every year. The female of the species is as destructive as the male. It leaves behind it lighted matches, glowing cigarette-ends and hot pipe ashes. Although it is a terrible pest, it means no harm. It is just careless and forgetful. If it would only remember to stamp out its cigarette-ends, matches and pipe ashes, much food would be saved for the nation.

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✚ Crippled children throughout Alberta have been helped for a quarter of a century by the Red Cross. Nearly five thousand have been given treatment at the Junior Red Cross Crippled Children's Hospital. This care includes the finest medical, surgical and dental skill, teaching in their school subjects by qualified teachers, instruction in handicrafts and other pastimes to keep the little patients interested and happy—AND IT'S ALL FREE TO THOSE WHO NEED IT. A new hospital is about to be built to give greater facilities for restoring health and strength to these little deformed bodies. Will you help to give a crippled child a chance to run and play and have a happy and useful life?

✚ The need for blood donor clinics and blood banks is not over. While the terrible demands of the battlefield are mercifully at an end, there are still lives to be saved in our own communities by blood transfusions. The Red Cross plans to maintain clinics to make this life-saving service freely available to our own citizens when the emergency arises. One million dollars will be required to provide this free service to civilians in Canada.

✚ Training our citizens in first-aid and home nursing — instructing our junior members (42,225 of them in 1,693 branches in Alberta's schools) in health, safety methods and good citizenship—helping and visiting our wounded veterans—ever ready with relief and comfort in disaster—these are some of the services that demand a strong Red Cross in peacetime too.

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Won't you add your membership to aid this great work? A subscription of one dollar or more entitles you to membership in the Canadian Red Cross Society and a share in its great work for humanity. If a Red Cross canvasser has not called on you, you may send your subscription direct to—

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An acknowledgement and membership card will be mailed to you promptly.

# Keep the Farm Horse Working Efficiently

By PROFESSOR J. P. SACKVILLE  
Department of Animal Science  
University of Alberta

**D**RIFT horses are the only class of farm livestock that have not shared in the upward trend in demand and price that has prevailed during the past few years. Tractors and trucks can always be substituted to a large extent for horses as a source of farm power. This places the horse in a somewhat different position from that of most other farm animals. The manufacturers of farm implements have done a good job in providing mechanical power, especially farm tractors that are adapted for practically any class of work, and in this connection have contributed in no small way in the demand for agricultural products that has existed recently.

The stiff competition that has to be met by those who depend largely on

draft horses for farm work, emphasizes the need of leaving nothing undone in order to meet this situation. This brings up the question of ways and means that might be considered with a view to reducing the cost of operating with horses.

The results of a survey sponsored jointly by the Federal Economics Division and the Canadian Pioneer Problems Committee some years ago in Alberta and Saskatchewan reveals some interesting and practical information related to the economic use of horses.

Cost of feed, as would be expected, is the largest single item of cost and ranges from 46 to 59 per cent of total annual charges. There is possibly a greater waste of feed with horses than with any other class of farm livestock. It has been observed that when feed is plentiful considerably more is offered than is actually consumed and frequently in excess of what is good for the horse. It is estimated that the exercise of reasonable judgment would result in a saving of from 10 to 20 per cent in cost of feeding farm horses.

**T**HE amount of feeds fed to farm horses should be limited to no more than will keep them in good working condition. On the other hand a horse that is underfed, poorly cared for and unthrifty cannot be expected to do a full day's work or continue as an efficient machine throughout the working season. Admitting the need of proper care, any time spent in addition to this, which could be profitably made

use of doing other work on the farm, is wasteful of man hours and increases the cost of horse power.

The time spent in caring for approximately 3,000 horses on 258 farms, included in the survey to which reference has already been made, was 48 man hours per horse per year. This represented between 25 and 30 per cent of the total cost in maintaining a horse. It is pointed out that while stable accommodation should be adequate, it should not exceed \$40 to \$50 per work horse in value.

For most efficient use of horsepower consideration should be given to the number of hours per year a horse is at work. This means that only a sufficient number of horses should be kept to do satisfactorily the work required on the farm. Too many idle horses increases the cost of performing farm work. In other words, the actual number of hours a horse is at work during the year has a direct bearing on the cost per horsepower. In the case of one group of farms where the number of hours per year that horses were in use ranged from 351 to 500 hours, the cost per hour was between 14 and 15 cents compared to a cost per hour of 6½ cents on those farms where the horses at work ranged from 800 to 1,165.

## Should Work 650 Hours

It is estimated that sufficient productive work should be available to give each horse at least 650 hours of work per year. In order to accomplish this, no more horses should be kept than one for each 25 to 35 acres of land under cultivation to be worked by horses, depending on the type of soil and the intensity of agriculture being carried on. Following a crop rotation which permits a longer seeding season and partially preparing a seed bed in the fall so as to leave a minimum amount of work in the spring will result in a reduction in the number of horses required.

The question of the size and type of horse that is best adapted for farm work is one upon which there is considerable difference of opinion. In one district in Central Alberta devoted largely to mixed farming, it was found

that 68 per cent of the horses in use on farms weighed between 1,275 and 1,475 pounds and less than 5 per cent weighed over 1,575 pounds.

A rather extensive investigation was undertaken in twelve mid-western states in 1936, seeking knowledge on the kind of work horses most popular on the farm in this section of the United States. Where a farmer was found who declared he had a horse that just suited him it was led out for measurements and inspection. It is interesting to note that a total of only 243 work horses of the many examined qualified as an ideal farm horse. The average height of 70 per cent of those selected was from 15 to 16 hands and from 1,400 to 1,550 pounds in weight.

...

## Attractive Coat Is Important

By PROFESSOR J. P. SACKVILLE

**O**NE of the problems that is of more than ordinary concern to beef cattle breeders who are preparing cattle for the spring shows and sales, is that of retaining a full coat of hair during the later winter months.

The advantage in favor of an animal carrying a thick, uniform covering of good quality hair compared to one that has started to shed and shows bare spots is fully appreciated by cattlemen. This difference is usually reflected in the standing in the show and the price received in the sale ring.

Weather conditions have a direct influence on this matter of preserving the hair. Prolonged mild spells result in shedding of the coat. This is especially true when cattle are confined to close quarters which lack ventilation. Keeping them out of doors 24 hours a day will help.

Freedom from lice and a clean, healthy skin are possibly the greatest factors in relation to maintaining the desired condition. This stops rubbing to a large extent—one of the main causes of losing hair. Frequent washing, once a month if possible, using a standard cattle dip, is most effective. This may present a problem during cold winter weather unless provision is made for proper protection immediately following washing. It may be possible, however, to select a mild spell when the job may be done without taking too much risk. Insect powder may be applied as a substitute for washing when this is out of the question.

...

## McIntyre Pays \$2,250 For Texas Hereford Bull

The McIntyre ranch, Magrath, Alta., bought a Hereford bull, Advance A Jr. Domino 48th, for \$2,250 at the National Western stock show at Denver, from Alfred Meeks, Dalhart, Texas.

W. A. Crawford-Frost, Nanton, sold two heifers by Silver Standard: Lady Riskmore 44th, which stood 13th in a large class of junior yearlings, for \$2,050 and Fuchsle Standard, for \$850.

Mr. McIntyre said average bull prices were higher than last year, and the southern cattlemen appeared confident of the future; 98 Hereford bulls averaged \$2,040 and 57 females, \$1,417. Top-price bull sold for \$16,500.

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## Record Price For Shorthorn

The world record price for any breed of cattle, \$61,335, was paid for a Shorthorn bull at Perth, Scotland, on Feb. 12. The bull, Supreme Champion Pittodri Upright, was bought by Ralph L. Smith of Snyder, Missouri, from R. Laidlaw Smith, Pitcaple, Aberdeenshire, Scotland. Bidding for the animal started at \$4,230.

At the heifer sale, the Missourian paid more than \$40,000 for a lot which included Champion Rosetta Alpha from the Bunchrew, Inverness, herd of D. P. MacGillivray.

At the same sale, the well-known Alberta Shorthorn breeder, J. W. McCollister of Dalroy, bought the bull, Fairnighton Cashier, from the Fairnighton Estates for 1,650 guineas (approximately \$7,794). Several other Canadian and American breeders were among the buyers.

## Holden Short Course Told of Necessity For Soil Conservation

The annual short course at Holden, Alberta, sponsored by the Holden Chamber of Commerce and agricultural service board, was attended by some 150 people.

Dr. J. D. Newton, department of soils, University of Alberta, pointed out that from a survey in the Holden area, which is about 60 miles southeast of Edmonton, it was determined that at least one-quarter of the natural soil fertility in the district has been exhausted. The present method of farming will further deteriorate the soil unless the farmers include grass and legumes in their crop rotation. For beginners he recommended a six-year rotation of summerfallow, three crops of grain, followed by two years of alfalfa and grass mixture. He said that a 30-bushel crop of wheat extracts at least 60 pounds of nitrogen and 20 pounds of phosphorus per acre. He felt that the farmers have reached a stage where the soil must be saved by use of grass and legume rotation to prevent water and wind erosion.

Other speakers included Horace Soley, president of the Holden Chamber of Commerce, who welcomed the visitors; B. T. Stephanson, agricultural engineer; C. W. Traves, Alberta poultry commissioner, and his assistant, Mr. McDaniel; P. D. Hargraves, superintendent of Brooks horticultural station; Mr. Townley-Smith, district agriculturist at Hughenden, who spoke on weed control; A. W. Moisey, district agriculturist at Ryley, who gave a talk on feeding and marketing trends of beef cattle.

## Low Butter Stocks Mean Smaller Ration

The butter ration in Canada will be reduced during March and April from the previous six ounces per person per week to four ounces. Restaurants and other quota users also had their butter rations reduced.

Stocks of creamery butter in cold storage, dairy factories and in transit at Feb. 1 totalled 22,988,297, compared with 36,228,503 pounds at January 1 and 30,625,729 at February 1, 1945.

Holdings of cheese also were lower—24,194,529 pounds compared with 32,499,197 a year earlier. Stocks of evaporated whole milk held for or by manufacturers February 1 were 11,227,666 pounds as against 22,837,615 pounds on the same date in 1945.

## EARLY ACTION URGED AGAINST THE WARBLE FLY

"It's warble time right now," and steps should be taken at once to make that district a warble-free area, Hugh McPhail told a good attendance of farmers at the agricultural short course held at Olds. He appealed to stockmen to help in stamping out this pest which costs Canada an estimated \$14,000,000 annually. An animal could be rid of the nuisance at a cost of three cents by applying a derris wash with a brush, and for large herds or community action a power sprayer was recommended. A good start in this direction had been made in the Madden district last season, and the work will be continued through the membership of calf clubs. The Westcott Calf Club has recently purchased a power sprayer.

W. G. LeMaistre, provincial apiarist, spoke on the care and management of package bees, suggesting feeding during the interim between dying off of dandelions and blooming of clovers, to prevent the hive from weakening at this time.

Prof. J. P. Sackville, University of Alberta, spoke on the future of agriculture in Canada at a luncheon arranged by the Hammer Rural Ladies' Aid, and later spoke on cover crops and finishing beef cattle.

Dr. P. R. Talbot, Provincial veterinarian, said a great many livestock troubles could be traced to poor feed. Moulds had proved fatal in some herds. He said vaccination for shipping fever should become regular practice, and must be done each year since this does not immunize for life. He also advised vaccination for blackleg, at one month and again at six months. He said iodine was deficient in many districts in Western Alberta.

E. C. Hallman, supervisor of farmstead planning, gave an illustrated lecture on this subject at an evening meeting. Bruce Martin, who is in charge of the rural electrification test area at Olds, spoke on rural electrification in Alberta.

## New De Laval Truck Permits Fast Milking

The De Laval Separator Company has recently announced the addition of a new milking truck to its line of dairy equipment. The new De Laval speedway milking truck was developed as the result of the widespread adoption of the De Laval speedway method of fast milking. This milking program calls for systematic, timed milking on a regular schedule and a few easy steps to follow preparatory to the actual milking. These consist of washing the udder with a clean cloth which has been immersed in a warm chlorine solution and the use of the strip cup.

The milking truck comes equipped with a strip cup and four enameled pails to accommodate clean towels, chlorine solution, hot water and udder towels. As the milking progresses, the truck can be easily moved down the line thus placing all the necessary equipment within arm's reach of the operator.

Equipped with strong rubber tired steel wheels and of rugged tubular construction the truck has an additional feature as it can also be used to carry four De Laval milker units or milker pails.

Clerk: "Here's a pretty card with a lovely sentiment: 'To the only girl I ever loved'." Sailor: "That's fine. Give me a dozen."



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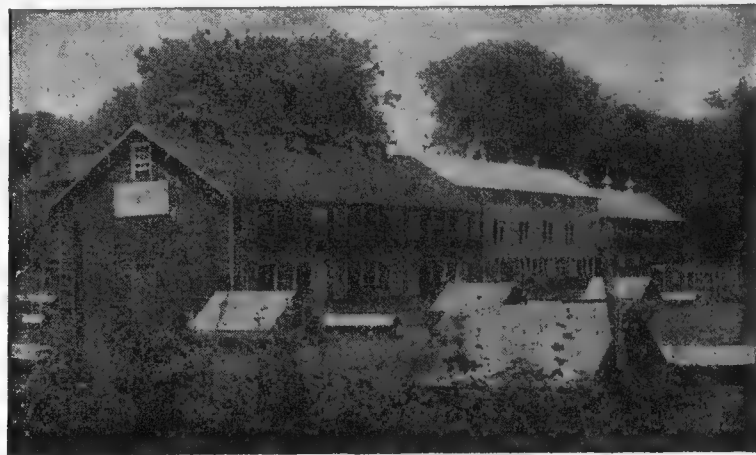
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A view of the Whitred Poultry Farm, Hastings, Ont.

Hastings, Ont.

Gentlemen:

Quaker Ful-O-Pep Chick Starter promotes rapid healthy growth and high livability. Another outstanding feature of Ful-O-Pep is the great amount of yellow pigment it gives my pullets. We have used Quaker Ful-O-Pep Chick Starter for a number of years and find it the best we have ever used and recommend it highly.

(signed)

W. C. WHITRED,

Whitred Poultry Farm.

## HIGH LIVABILITY . . . RAPID SOUND GROWTH ON FUL-O-PEP

High livability is of great importance. Every chick that dies is a direct financial loss. Chicks that fail to thrive and grow rapidly and sound are also not good investments. Yes, prominent poultrymen like Mr. W. C. Whitred, a breeder-hatchery man who works with White Leghorns, Barred Rocks and Hampshire Reds, use the feed that produces the results, Quaker Ful-O-Pep Chick Starter.

So, this year start your chicks on Quaker Ful-O-Pep Chick Starter, the feed recommended by prominent poultrymen across the Dominion.

Remember—chicks started and raised to maturity the Ful-O-Pep Way are bigger, stronger . . . the kind that lay more eggs, and stay strong and productive for several years.

See your local Ful-O-Pep Dealer and ask for your free copy of the valuable booklet "Raise Sound Profitable Pullets this year," or mail this coupon today!



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Please rush my FREE copy of the NEW 1946 Ful-O-Pep Chick Book on how to grow livable, profitable pullets and yet save up to 50% on feed costs.

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A WRONG impression seems to be abroad concerning the action taken at our recent convention on the proposed merger of the three farm organizations — United Farmers of Alberta, Alberta Farmers' Union and Alberta Federation of Agriculture.

## U.F.A. to Continue

The facts are that our board has been instructed to proceed with plans for the bringing about of this merger which calls for meetings of committees of all three bodies in joint session to determine a basis for the merger. Although provision was made in the resolution which passed the conventions of all three bodies for a special convention to be called, it is nevertheless felt that the process of accomplishing the merger will take at least one year to complete. In any event the

United Farmers of Alberta will continue as such for 1946. The U.F.A. as an organization, including central and locals, has many commercial and property interests which have to be taken care of before the merger can take place.

We have appreciated the many kind things said about our organization since the above action was taken, but wish to let your readers know that the United Farmers of Alberta is still continuing its work throughout the province.—Eileen Birch, Secretary.

# Editorials by PRACTICAL OBSERVERS

THE Alberta government, according to report, will introduce legislation providing for a forty-hour work week.

Of course it would be manifestly unfair to apply the new legislation only to workers in factories, stores, offices, or construction or other work. Farmers are entitled to a forty-hour week if other workers are to enjoy same.

It will now be up to the department of agriculture to devise a whole set of new farm animals. We will want cows who will yield milk on five days a week, chickens which will do a seven-day laying stunt in five days, and hogs and cattle which will accumulate as much meat in five days as they formerly did in seven.

To put the situation very bluntly: if people in towns and cities are to work only five days a week why the hell should farmers work seven days a week!—Brooks Bulletin.

JUNE 21st, which this year falls on a Friday, has been fixed as "Farmers' Day" by the Canadian Federation of Agriculture. It is expected that all farmers will rest from their labors that day.

When the resolution fixing the date came before the annual convention of the Federation, W. J. Parker of Winnipeg, president of Manitoba Pool Elevators, asked, "Why June 21st?" James Jackson of Irma, former president of the Alberta Farmers' Union, replied: "It is the longest day of the year and I believe the farmers ought to get the most for their money."—Alberta Wheat Pool Budget.

EQUALITY for agriculture is not just a nice sounding phrase or slogan which may appeal to farm people because it can be interpreted as a promise of more for themselves. On the contrary, it sets up a goal which to farm residents envisions rural homes, rural schools, rural medical and hospital services, rural churches, rural libraries and rural recreational and cultural opportunities which compare favorably with those

enjoyed by urban citizens on the average. To the nation it means much more than that. A healthy, thriving agriculture,—synonymous with a condition of equality for folks on the land—it means better and more efficient production and therefore a more abundant supply of good quality farm products for home and export markets; it means better care and conservation of the soil; and it means an effective demand for the products of industry. Farm families are doubly valuable consumers, in that they buy not only goods for family living, but supplies and implements of production as well in the retail market.—H. H. Hannam, President, Canadian Federation of Agriculture.

NOT long ago the Canadian Institute of Public Opinion raised this question: "If a company reduces its costs of production should it sell its product for less or should it use the saving to increase the wages of labor?" The Institute renders a service to the nation when, by this means, it feels the pulse of public opinion, makes known its findings. The result—35 per cent wanted lower prices, 42 per cent wanted an increase in wages. There were other opinions, not stated, and some who had no opinion. To my point of view there can be no doubt as to the correct answer.

If prices are lowered, all gain—the people of Canada pay lower prices for the things they buy—therefore they have more money with which to buy goods. The result is more employment, a higher volume of total wage payments, greater prosperity, not only for labor but for all Canadians.

The increase in production per man is the fruit of national effort, not of labor alone, nor of capital alone, not even of science and education, but from all the many and diverse factors which contribute to the improvement of the means of production, distribution and sale of commodities.

In the period from 1923-25 to 1939 production per man-hour in manufacturing in the United States increased 64.2 per cent. If these gains had been passed on to society as a whole in the form of lower prices labor would have received its share, the cost of living would have fallen, demand would have been greater, sales abroad would have increased, labor would have had a higher level of employment. Wage rates would not have risen to the same extent but total wage payments would have been higher, there would have been little or no unemployment—taxes would have been lower. Selfishness is too powerful a factor



IN 1871 THE SUN LIFE OF CANADA issued its first policy from a small office in Montreal. The event occurred six years after the Company received its charter, during which time—with the passing of the Act

of Confederation (1867)—the Dominion of Canada was born. The Sun Life of Canada has marched forward with the Dominion which, with its steady growth in resources and its rise in world esteem, has earned so high a place in the councils of mankind. The Company's growth is significant proof of wide public acceptance. Through three quarters of a century, during which wars have scarred the earth, and mighty inventions and discoveries have altered man's destiny, the Sun Life of Canada has met successive opportunities, expanding as life and industry took on new shapes and aspects. In 1895—at the end of the first twenty-five years of operation—the assurances in force amounted to \$35 million. At the end of fifty years—in 1920—this amount had risen to \$488 million. Today, after seventy-five years of public service, the Sun Life of Canada holds a leading place among life assurance companies with well over one million policyholders, and assurances in force of \$3,390,372,327. The Company's financial strength and high standard of service are indeed worthy of the finest traditions of a great time-honoured enterprise.

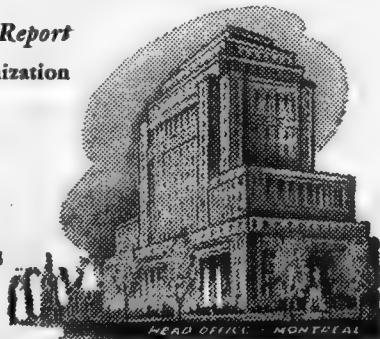
### From the 1945 Annual Report

Benefits paid since organization  
\$1,800,672,431

Benefits paid in 1945  
\$90,226,067

Assurances in force  
\$3,390,372,327

New assurances in 1945  
\$241,409,819



## SUN LIFE OF CANADA

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J. A. ISBISTER, C.L.U., Branch Manager, Calgary  
R. A. COULTHARD, Branch Manager, Edmonton

## ELECTRIC POWER ON THE FARM

WE walked into a Lethbridge plant the other day, an attendant turned a switch on an electric stove, an electric dynamo started up, driven by gasoline, and before we knew it the element on the burner of the stove was hot, ready to boil the tea kettle. And we said to ourselves: This is the development which will mean as much to rural living in this decade as did the cheap motor car after the First Great War. And particularly it will mean to the farm housewife as much as did the motor car for, while the car overcame distance and loneliness, this will overcome the drudgery of the farm kitchen. It will light the home and the barn, it will operate the standard type home helps like a vacuum cleaner, it will pump the water, do the refrigerating and make farm life worth while.

These new farm power plants are not intended to take the place of the rural electric line fed by high tension wires from the central plant a hundred miles away. But that kind of rural electrification can come only in areas which are fairly thickly settled—three settlers per mile or, at the least, two. These plants are for the isolated farms and ranches in the big farm area where there isn't a chance in the world of getting rural electrification as we know it.

The new plants which supply 110-volt power will, soon as they are available, change farm living to a degree that nothing has done in the past 25 years. We hope that the manufacturers can get priorities to make them by the tens of thousands. We need them if we are going to hold on our farms and ranches the kind of people who can make such ranches produce as they should produce. Watch this new development.—The Lethbridge Weekly Herald.

in human affairs. It is self-destructive. High wage rates tend towards a reduction of total wage payments. It is well that this should be so. If we lived in a world where selfishness never paid there would be little selfishness. While writing this I reached for a book lying on my desk. I was in search of a quotation which seemed to fit the mood of the moment. I could not find the item I wanted, but as I turned over the pages there fell on my desk a three line clipping. It was from Solon, a statesman of Athens, a law-giver who lived five or six hundred years before the birth of Christ, it read:

"The ideal state is that in which an injury done to the least of its citizens is an injury done to all."

The same idea has been repeated in a hundred forms but we move further and further from it as the years pass. When we come to believe it we will have United Nations even if there is no organization by that name. Man then will have recognized that even if he is not his brother's keeper, he has, at least, an interest in mankind.—R. J. Deachman, Ottawa.

• • •

WITH all sorts of food products in demand, it should not be hard for farmers to follow their favorite practices in laying out their 1946 cropping program. But we hope

### Balanced Farming

that they will try to balance things up and look to the long-range requirements of their farms. We're still threatened with soil erosion through wind, and the farmer who has the good of his land at heart might well consider seeding down a portion of the arable area to provide feed and pasture for livestock for which a ready sale appears assured for some years. Now when farmers are in good financial position is the time to do some of the things which the urgency of income during the depression years, and the great demand for food during the war years, made impossible. Better balanced farming is possible now, and it's a good time to start.—Lethbridge Weekly Herald.

• • •

THE president of the Alberta Farmers' Union has stated that the organization favors close collaboration with organized labor. Theoretically the idea may appeal to farmers but the practical working out may not seem so favorable.

### Collaboration With Labor

Suppose school teachers organized and demanded \$150 a month, what would be the reaction? Yet packing house workers earn that wage. School teachers have to go through years of study and highly trained specialized training, during which they have no earning. Who will say packing house workers should be paid more than a school teacher?—Brooks Bulletin.

• • •

### Co-operative Farming Group Organized

A family group at Meskanaw, near Melfort, Sask., who have been co-operating for years with labor and machinery, now will pool their land and livestock as well, and centralize their buildings. Known as the Laurel Farm Co-operative Association, membership consists of six men and three women.

Of the six co-operative farms in Saskatchewan, three are for the operation of farm machinery and three for more extensive co-operation like the Meskanaw project.

"You can do  
ALL FOUR



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2 Seed  
3 Pack  
4 Cultivate

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**COCKSHUTT**  
NO. 33 TILLER-COMBINE!"



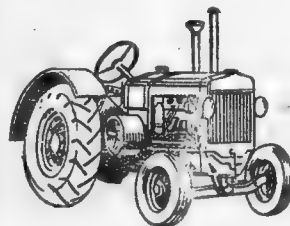
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## THE WARTIME PRICES AND TRADE BOARD

# FARMERS' BULLETIN

### BUTTER RATION REDUCED TEMPORARILY

Hon. J. L. Ilsley, Minister of Finance, has announced that depleted stocks of butter, lower winter production and increased consumption have necessitated a cut in the butter ration during March and April from the present 6 ounces per person per week to 4 ounces per week. Instead of 3 coupons becoming valid every 4 weeks, there will be 1 coupon every 2 weeks. Coupons will become valid on March 7 and 21 and April 4 and 18. Quota users, except hospitals and such special users, must make their butter allocations for the first quarter last until April 30.

### NO SUBSIDY ON IMPORTED PACKAGED BEES

The subsidy of 50 cents per pound, paid on imported package bees during 1944 and 1945, will not be paid on 1946 importations. Instead of this subsidy, which was to take care of increased production costs, there is to be an upward revision in the ceiling price for honey across Canada for the 1946 crop.

### FARM SLAUGHTERING OF MEAT

Rationing in Canada is providing meat for export to Europe and Great Britain at the rate of approximately 150,000,000 additional pounds per year. In the three months following the re-imposition of meat rationing, domestic meat consumption was reduced by 3.4 pounds per person, or an equivalent of 8½ percent over the year. Farmers have been largely responsible for making this additional contribution possible, and they are asked for continued co-operation in observing the following regulations:

Meat ration coupons are to be collected by farmers from the ration books of members of farmers' households when meat slaughtered by themselves is consumed by themselves, as well as for meat they sell to neighbouring farmers and to licensed slaughterers. These coupons are to be sent to the local ration board by the tenth of each month.

One meat coupon must be turned in for every four pounds of meat consumed in the household but farmers need not turn in more than half the valid meat coupons in the household's ration books.

For the meat sold to neighbouring farmers, they must collect one ration coupon for each four pounds of meat sold, even if it means collecting coupons which have not yet been declared valid.

For meat sold to licensed slaughterers, they must not sell less than a quarter of beef or a side of pork, and they must collect a ration cheque or other ration documents for the full poundage of the meat, according to the wholesale meat coupon chart. Every licensed slaughterer has a chart in his possession.

### MAPLE SYRUP SALES

There are no major changes in prices or in the method of rationing maple syrup and maple sugar this year. Maple butter has been removed from the ration and will be coupon free the same as maple wax (la tire) and maple cream. Maximum prices per Imperial gallon for sales of maple syrup direct to consumers, in screw top metal containers, f.o.b. nearest shipping point are:

Ungraded syrup.....\$2.40      Canadian Medium Grade...\$2.90  
Canada Dark Grade...\$2.65      Canada Light Grade.....\$3.15

Prices will be 25c less if sold in bulk. If sold by grade, the grade must be clearly marked on container; otherwise price for ungraded syrup applies. Grading must be in accordance with the Maple Industry Act and the colourimeter approved by Federal Department of Agriculture.

A premium of 25c per gallon over the "Canada Light" price has been fixed for syrup grading "Fancy".

**MAPLE SUGAR:**—Maximum selling prices per pound are:

Loose-packed in bags or other containers, commonly known as "farmer's run"..... .22  
½, 1, 2 or 4 lb. blocks..... .35  
Maple wax (la tire), maple butter and maple cream.... .35

**COUPONS:**—From March 1 to May 31, one sugar-preserve coupon covers the purchase of two quarts (80 fluid ounces) maple syrup, or 4 lbs. maple sugar. Maple butter, maple wax and maple cream are not rationed. After May 31 one sugar coupon will be good for 48 ounces of maple syrup.

A farmer may use his own maple products on his own premises without surrendering coupons. He must collect coupons for all direct sales of rationed maple products off the farm, and forward coupons to his Local Ration Board.

**MAIL ORDERS:**—Loose coupons must not be accepted with mail orders. In exchange for two preserve coupons a special voucher, covering purchase of one gallon of maple syrup, can be obtained from the Local Ration Board. Producers must not ship syrup unless this voucher accompanies order.

Vouchers received by producers may not be transferred, exchanged, negotiated or deposited and should be forwarded to Local Ration Boards by 10th of each month in postage-free Farmer's Envelope, RB-61, together with coupons and other valid ration documents from sales of maple syrup and maple sugar.

### FARMERS' RATION COUPONS

	Butter	Meat	Sugar-Preserves
March 7.....	R-3	27	S2
March 14.....	—	28	—
March 21.....	R-4	29	S3-S4
March 28.....	—	30	—

For further particulars of any of the above orders apply to the nearest office of the Wartime Prices and Trade Board.

## Pig, Salt and Smoke

By EVERARD CLARKE  
In The Cream Collector

FOR centuries man has preserved his food in times of plenty against a time of want. The approach of frost and cold weather, in the season of harvest, brings to my mind the lure—age old—of smoke and salt. Under their twin influences the lowly porker rises to a full height in thoughts of tender juicy ham and savory crisp bacon.

For centuries man used the sun to dehydrate. He used precious salt to halt the process of decomposition. He hung his meat from the rafters and he found an added preservative and flavor in the smoke which often filled the room.

There is a deep satisfaction in poising a carving knife over the juicy fragrance of steaming well-cooked ham and remarking with ill concealed pride, "our own, you know." The pride is justifiable too. The proper curing and smoking of pork is a skill requiring the touch of experience as well as the gift of a discerning palate.

Butchering in the days when I was a boy, was something of a seasonal rite. Nowadays the process is much simpler. Sometimes a local butcher is engaged in advance to do the slaughtering and cleansing.

Nevertheless, there still are a large number of people who kill their own pigs, do their own curing and smoking, and satisfy their own personal tastes. I know one part of the North Okanagan where a friend of mine translates old-time ceremony into a streamlined procedure which certainly nets him a superior product—one I take a delight in too—with a minimum of effort.

HERE is how he handles some of it. He produces the following pieces for curing and smoking from two halves of each hog; two shoulders, two hams, four pieces of Canadian bacon, eight sections ordinary bacon—altogether sixteen very choice pieces, with a minimum of work.

The best results are entirely possible on the farm. It depends upon rigid observation of a relatively few important steps of which cleanliness and temperature are the most important (just as in dairy farming).

Number one is selection of the pig; size 180 pounds, approximately, produces the best ham and bacon of the desirable size. Hams of a 200-pound pig will weigh approximately fourteen and bacon about ten pounds. Heavier animals produce a greater percentage of lard also something which can not be bought readily in local stores at the present time.

Absolute cleanliness and controlled temperatures are essential. There can be bacteria within the flesh tissues. It is an inevitable contest between the "butcher" and the "bugs". If the butcher is to win, he must chill the slaughtered carcass down to 38 degrees as fast as he possibly can. It is exactly the same as getting the animal heat out of cream and bring it to under 40 in a matter of minutes. Of course a carcass takes longer.

In the packing house they hang the carcass in a cellar maintained at 32 degrees until the carcass reaches 38 degrees. Curing should never begin until

this chilling is approximated as nearly as possible. It must be through and through. For best results it should take two days at least. Once the carcass is chilled it should be cut into desirable family-size pieces. This is a matter of personal preference. Be sure the pieces are neatly trimmed and that there are no ragged edges, blood spots, and excess skin and fat.

Bacteria grow beautifully in fresh pork at high temperatures. They like where they live and they prove it by multiplication. The cold holds them dormant. Salt provides an environment they don't like. So do sugar and nitrates. There are two methods which may achieve proper penetration of the meat by the curing material. One is dry cure and the other is pickling or wet cure.

The basic formula is virtually the same for wet or dry cure. Eight pounds of salt, two pounds of sugar (if you can get it), two ounces saltpeter, for each one hundred pounds of meat. If you are using the wet cure, or pickle, add four and one-half to six gallons of water. Saltpeter will preserve and impart an attractive red color to the meat. It adds little or nothing to the flavor and too much makes for woody fibred flesh. A great many people prefer brown sugar. Honey can be used along with brown sugar.

For testing the brine, my mother used to say it should be strong enough to float an egg to the point where its shell emerges from the brine to the size of a dime. Be sure salt is thoroughly dissolved before testing. It is a good idea to make the brine stronger to start with. It is easier to add water than to figure out proportionate additions of other ingredients.

NOW that your meat is cured, it remains to tackle the smoking. This occurs in two periods. The quicker cured bacon first and the slower hams in due course. After removal from the pickle, all pieces should be soaked in clear, cold water and hung up to dry so they will be free from any attack of flies and insects. Soak hams about two hours and bacon about 30 minutes. Soaking is said to make for a lighter, cleaner and milder flavor.

Smoking involves a smoke house of some sort. It can be as simple as a barrel but usually it should be an ordinary 6x6x8 building, equipped with adequate ventilation and should be mouseproof. A good cool smoke will rise freely from green wood. Under no circumstances use resinous wood such as pine. The flavor will be appalling. In this country most people seem to prefer alder. The purpose of smoking is two fold. One is flavor and two is preservation. Smoking deposits creosote on the meat which retards and prevents the growth of bacteria. It also dries the surface and retards the growth of molds.

The temperature should be around 120 degrees. Smoking, remember, is for flavor, drying and preserving—not for cooking.

A good rule is two days smoking at 110-120 degrees. You should finish a ham to a rich brown color. A thin flow of smoke produces a milder flavor, dense smoke a more pronounced flavor. Some experts in the north Okanagan like to do the smoking in shifts. Smoke for a day and then cool for a day and then smoke again until the desired degree of smoke has been achieved

• • •

Ontario Agriculture Minister T. L. Kennedy said he planned to take action to discourage mutilation of horses' tails for the showing. He will recommend that no further provincial grants be made to these classes in future horse shows.

## Special Care Is Required To Produce Hatching Eggs

A FEW years ago, practically all poultry flock replacements were made with chicks hatched on the farm, either under the hen or through the use of small incubators. In recent years, however, this practice has changed and at present a considerable part of the replacements are made through the purchase of millions of day-old chicks from large commercial hatcheries. Operators of these hatcheries, as a consequence, are in the market for huge numbers of eggs suitable for hatching, and a profitable outlet for eggs is made available to the flock owner.

Eggs for hatching command a premium in price over those sold for eating but must meet certain requirements before such premium is paid.

The objective of the hatcheryman is to produce a strong, healthy chick from each egg set. Proper feeding of the breeder flock and careful handling of the eggs will aid materially in its attainment.

The flock should be shifted over to a good hatching ration at least three weeks prior to saving the first eggs to be used for incubation. These rations are high in riboflavin content, necessary to high hatchability.

Eggs should be stored in a clean, cool, well ventilated cellar and not held more than seven days. If held longer, hatchability is likely to be reduced. An even temperature of about 50 degrees F. is best.

Eggs should be selected for uniformity in shape and size and for shell texture and color. Odd-shaped, misshapen and very large eggs or those showing any sign of containing more than one yolk should be discarded.

Selection for egg size will not only influence egg size in the progeny, but makes for greater uniformity in the chicks. Hatching eggs should run 24 ounces and preferably 25 ounces to the dozen with no egg going below two ounces.

Eggs having undesirable shell characteristics — thin-shelled, rough or sandy, ringed, etc., should be avoided and where shell color is a factor select all hatching eggs to color standard.

As dirty shells are undesirable prevent the production of these as far as possible, for cleaning, and particularly washing, is likely to affect the hatchability adversely.

Before shipping to the hatcheryman or placing in the incubator check all eggs for cracks as it is improbable that a cracked egg will hatch.

### R. I. Red Roosters Travel 4,400 Miles

Five pedigreed R.O.P. Rhode Island Red roosters recently were shipped 4,400 miles from Cabri, Sask., to St. Kitt's Island in the Leeward group, British West Indies. When examined by a veterinarian at the C.P.R. terminal in Montreal the \$20 birds were in fine condition. The fame of Canada's 50,000 Record of Performance poultry is spreading: repeat orders for breeding stock also have come from points in South America.

### DISTRIBUTE COCKERELS

Jack Beer, R.R. 4, New Westminster, B.C., noted Barred Rock breeder, shipped 119 R.O.P. cockerels to Calgary this winter, where they were distributed to hatchery flock owners by two hatcheries in a campaign to raise the standard of their commercial chicks. Another 48 of Beer's Barred Rock males went to Haney, B.C.

### Keep Them Laying Important Factor In Poultry Profits

THIS is the time of year, a correspondent writes, when the price of eggs is so high that we want to get every egg we can from Biddy. The hens will do their share if a few simple rules are followed, with very little expense. The cock should be culled down to one-year-old and pullets, with possibly some vigorous two-year-olds, but no older, as they do not pay for their keep.

The laying house should face the south, in order to give the hens the utmost sun and light. A ventilator in the roof for fresh air is essential. The scratch pen, separated from the rest of the quarters, with a few inches of clean wheat straw, makes an ideal place for the hens to exercise in.

The ration need not be expensive. Oyster shell is all that a farmer would have to buy. Fresh, clean water is very important, and this should be warmed a little. If the container is hung up a few inches off the ground, the water will stay cleaner.

To balance the ration, the hens should have a little raw meat. A rabbit or a beef head is generally obtainable. For greens, supply alfalfa leaves or green oat sheaves, and round out the feeding ration with just enough wheat for the hens to clean up well. And remember cleanliness is always important in increasing egg production and helping to prevent disease

### Watch Temperature In Brooder House

THE proper temperature of a brooder house for the first three weeks' occupation by baby chicks should be such that the chicks are comfortable anywhere in the brooder house, and enough beneath the brooder to enable them to get warm quickly if chilled by staying too long in parts remote from the heater. This will be 90 to 100 degrees beneath the hover, with ordinary room temperatures outside.

A thermometer will be useful until the caretaker has learned to judge temperatures through observing the actions of the chicks. If the chickens are comfortable, they will not huddle or crowd together, but will separate and run about the floor; when cold they will gather beneath the hover, but will spread out upon the litter, some singly, some in groups and sometimes in a comfortable circle beneath or just outside the edge of the hover. While in contact with each other, they will not crowd and attempt to get beneath each other's wings.

Chicks should be confined near the source of heat for the first few days after having been put into their brooders, so that they may not huddle in cold corners and perish, but they will soon learn the source of heat and return to the hover when cold. It is to their advantage that they can have cooler portions of the room to play and work in and, as soon as possible, they should be given an outdoor run in addition.

The department of poultry husbandry at the University of British Columbia in recent months has shipped pedigreed breeding birds to many southern American states, to Mexico and as far afield as New Zealand.

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Chick Growth  
and Stamina**

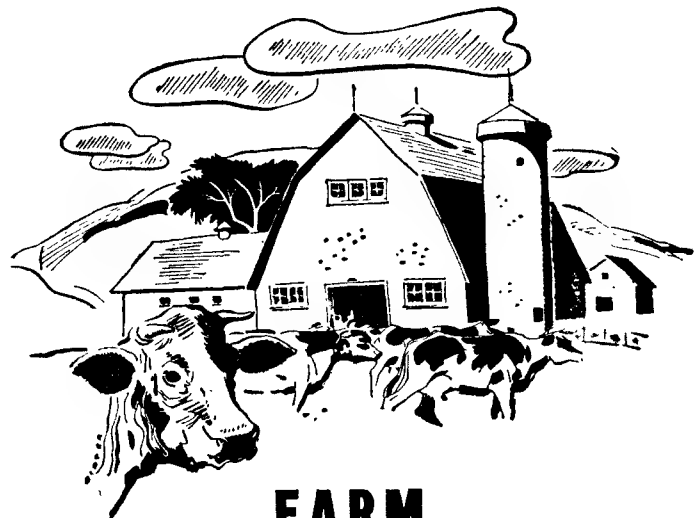


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## FARM IMPROVEMENT LOANS

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This Bank is fully equipped to make loans to farmers under the provisions of this Act.

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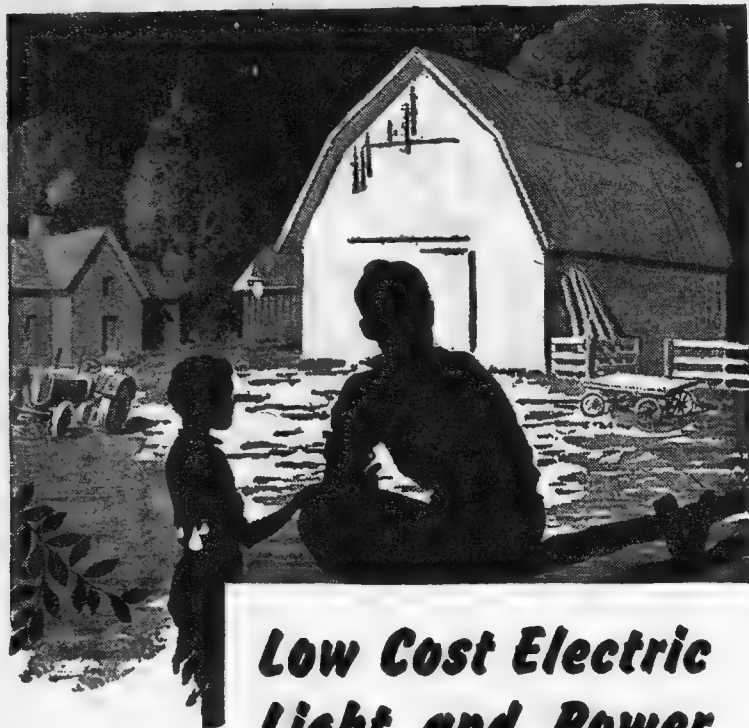
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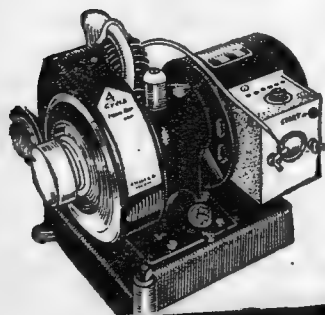
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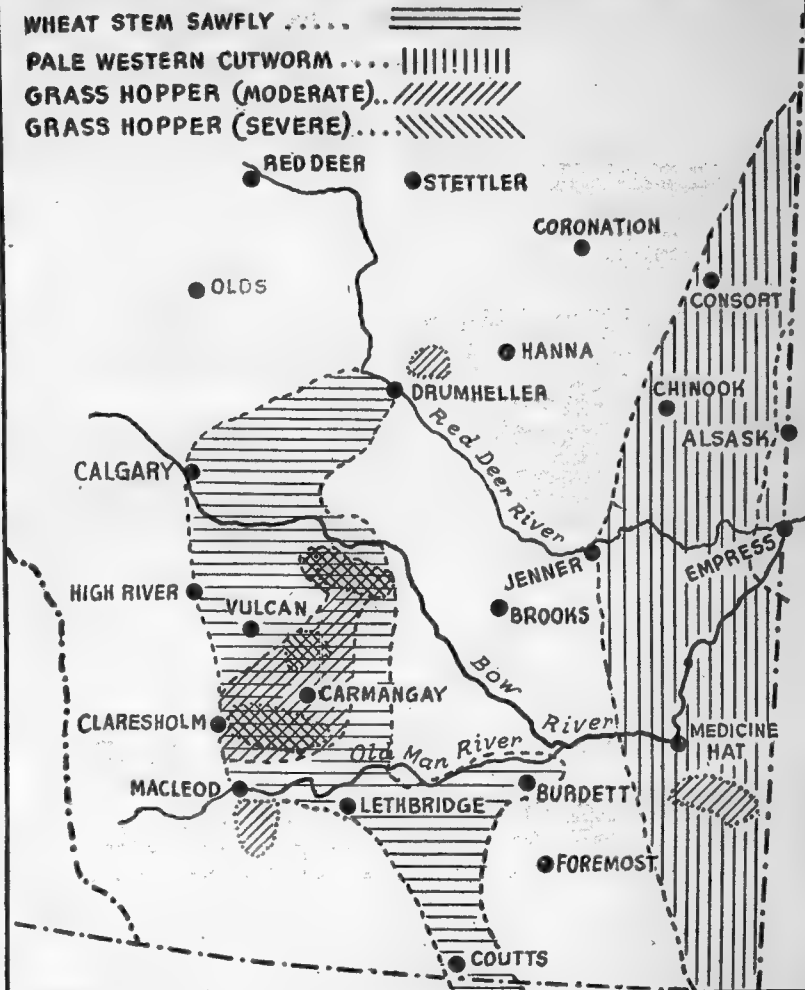
If you need power alone, the Iron-Horse power unit can be bought without the generator. The Johnson Iron-Horse is precision engineered for long and dependable service. Low upkeep and operating costs make the gasoline-fueled

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No. 575.



## ALBERTA AREAS OF INSECT HAZARD • 1946 •



THE accompanying map, prepared by the Dominion Entomological Laboratory at Lethbridge, shows the areas in Alberta where the most severe insect damage is expected in 1946. G. M. Manson, officer in charge of the laboratory, states that in addition to these areas of heaviest infestations, considerable damage may occur in other places also, particularly on the fringes of the areas shown.

He predicts that 1946 will see some reduction in the severity of grasshopper and sawfly infestations, but some increase in the case of pale western cutworm is likely.

Control measures for these three pests, and for wireworms, are outlined as follows by Mr. Manson. "All the control measures against one type of insect may not be necessary—they may be controlled on some farms through the use of one or two of the methods outlined," he says.

### Wheat Stem Sawfly

1. Use sawfly traps. Surround wheat fields with a bare summerfallow strip and an early-seeded strip of wheat. Do not seed main wheat crop until trap strip is showing through ground.

2. Use resistant crops, such as oats, barley and flax, with summerfallow to clean up blocks. Then use traps to keep them clean.

3. Use shallow tillage. Shallow cultivate all wheat stubble, particularly field margins, very early in spring or right after harvesting machine to bring infested stubs up to surface. This method may not be desirable in districts where drifting may occur, explains Mr. Manson. A one-way tiller,

run fast and shallow, results in the best kill; a disc is second best, he says.

4. Delay seeding wheat (especially when near sawfly-infested stubble) as long as possible—preferably until after May 15. This is an extreme measure, he admits, for use where infestation is unusually severe.

5. Seed crops in this order: first, trap strips of wheat; second, resistant crops—oats, barley, flax; third—the wheat crop, after trap strip is showing.

6. Never seed wheat in wheat stubble.

### Cutworm Control

1. Do not work summerfallow between August 1 and September 15, in order to form a crust on the soil surface through which the moths cannot lay their eggs. Keep livestock and vehicles off such fields, or the moths will lay in the loose soil in the tracks.

2. Avoid stubbling-in. It is quite certain that in areas where cutworms have caused damage, eggs will be laid in the stubble.

3. Use the starvation method. Very young cutworms can be destroyed by starvation in the open field, if, after they have started to feed and develop, their food supply is destroyed for a period by cultivation. If a field is suspected of being infested, it may be left uncultivated until the weeds (except stinkweed) and volunteer grain are one to two inches above ground. The whole field may then be cultivated and left for seven to ten days before seeding.

### Grasshopper Control:

1. Shallow cultivate all stubble (not deeper than two inches) after harvest or soon after spring thaw to root up egg-pods.

2. Don't stubble-in grain unless land has had above treatment.

3. When summerfallowing, crowd remaining grasshoppers together, then

poison them. Don't drive them off into crops.

4. Control with poisoned bait when necessary; watch for young hoppers—poison them before they scatter through crops; scatter bait only when grasshoppers are feeding; ten pounds of bait per acre scattered thinly is ample; apply in calm weather when sun is shining.

#### Wireworm Control:

In the case of wireworm damage, unlike cutworm damage, the crop can be reseeded after the damage is done in the spring. To distinguish between wireworm and cutworm damage: If it is damaged by a wireworm, it will take a little pull to get a plant out of the ground, and the root will be shredded rather than cut clean; wireworm damage usually is scattered throughout a field, while cutworms will clean out entire patches.

1. Do not work summerfallow between June 15 and July 31.

2. In order to get fast germination, seed shallow and do not seed early while the soil is cold; treat with mercurial dust rather than formaldehyde as that gives better germination. Seed heavier than usual.

3. A press drill or packer, to firm the soil, makes it harder for wireworms to work.

4. Seed resistant crops—oats, barley.

5. Wireworm damage is more likely to occur in grass sod which has been broken up than in other fields.

For further information on any of these pests, farmers are advised to consult their nearest district agriculturist or write to Dominion Entomological Laboratory, Lethbridge.

## Better Seed, Better Crops

SINCE the earliest days, writes Major H. G. L. Strange, director of the Crop Testing Plan, observers of farming have never tired of talking about the great benefits to be gained by the sowing of good pure seed.

LEVITICUS 19:19 (written about 900 B.C.) says: "Thou shalt not sow thy field with mingled seed."

ARISTOTLE, the Greek, (about 350 A.D.) wrote: "A good plant is not likely to grow from a bad seed."

PLINY, a Roman writer, (about 50 B.C.) told us: "After two years unless careful selections were made crops tended to revert to a common type."

Tests made each year by the "Crop Testing Plan" of the trueness-to-variety of farmers' fields indicate that this ancient advice is as badly needed today as it ever has been, for too many crops today consist not of one good variety, but sadly enough of mixtures often of undesirable varieties.

The purchase of some good seed, preferably Registered or Certified, undoubtedly will bring splendid returns to farmers in the way of increased incomes and from a modest investment. But good seed this year is scarce. Those who have difficulty, therefore, in purchasing Registered or Certified seed might inquire of any agent of the companies associated with the "Crop Testing Plan" for the names and addresses of farmers whose stocks, on test, were found to grade "Crop Testing Plan A" for this is good true-to-variety seed.

Each year there is an increase in the acreage seeded to forage crops in Alberta. Over 600,000 pounds were distributed under the Forage Crop Encouragement Policy alone in 1945, and a strong demand in 1946 is anticipated.

## IN DESIGNING NEW FARM EQUIPMENT

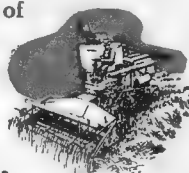
# John Deere Sights Were Set High

All during the war, the experimental departments in John Deere factories continued, without interruption, their development of new and improved machines. Sights were set high...designers aimed at new and practical ways of making farm life easier, more profitable. *And shortly, the farmers of America will see a parade of great equipment that will prove their aim was true...* equipment matched to the 109-year-old John Deere tradition of quality manufacture—more value for the dollar invested.

Revolutionary is the new hydraulic power-control on John Deere tractors. A touch of the hand actuates a rock-shaft for integral equipment or a cylinder on drawn and power-driven machines—lifting, lowering, and maintaining them in any desired working position. *It truly introduces the lever-less age in implement design.* ★ Outstanding are new one-man Kwik-Tatch devices for cultivators, bedders, plows, and other integral equipment...time-savers that mean more hours in the field, less



knuckle-scraping in the change-overs—one man does the trick. ★ There will be a new tractor for the small farm with outstanding new features that put it far ahead of the field. ★ An important new machine is the John Deere Automatic Hay Baler, destined to cut baling costs to rock bottom. One man, instead of three or four, does the job. It's the only baler of its type that feeds the wind-row directly into the baling chamber and ties with wire. ★ New and improved harvesting machines include a new self-propelled 12-foot combine and many new features on the famous John Deere No. 12-A. Lighter-weight, faster-working corn pickers will



shorten and lighten the corn harvesting job. A new, really portable elevator not only handles corn, but baled hay as well. A simple new grain mover that will replace old-style small grain elevators. ★ Beet growers are enthusiastic about the new John Deere harvesters and loaders already in the field in small quantity. Potato-growers will welcome the new double level-bed digger—a new, more practical two row machine. The new cotton harvester is a major contribution toward cost-reduction in the growing of cotton. ★ New integral one- and two-bottom plows... a new two-bottom truss-frame plow... a new disk plow... a new land-leveller... a six-inch hammermill for small power...



a low-cost, front-end manure loader... a plow-sole fertilizing attachment... new low-down, rubber-tired grain drills... an integral field cultivator—these and many other new and improved John Deere machines will be on their way to American farms. ★ Manpower and materials will be the only limiting factors in production during the coming months, so keep in touch with your John Deere dealer—be ready for the new day in farming with new equipment from the John Deere Full Line.

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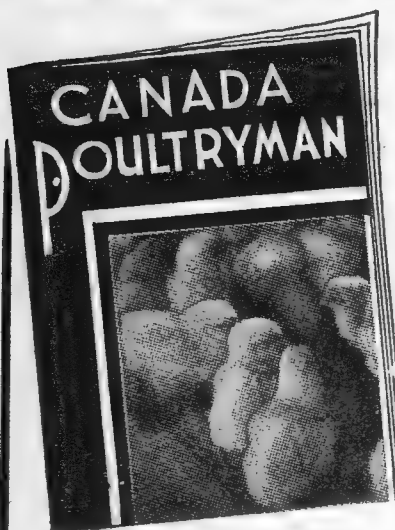
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## New Trends In Industry Outlined to Alberta Dairymen

(By Special Edmonton Correspondent)

TALK of new methods and trends in dairying stirred 300 attending the first post-war convention, the 25th annual gathering of the Alberta Dairymen's Association in Edmonton, Feb. 12 to 14. From experts they heard of farm and plant problems, from the head of the Dairy Farmers of Canada, the need of larger economical returns and from the head of the National Dairy Council of the promise of research.

The first annual provincial dairy meet had been held at Innisfail in 1906 and the association which now embraces five sections, was organized in 1919. Alberta had come a long way in expanding the dairy production in the past 25 years, said Hon. D. B. MacMillan in opening the convention.

Alberta milk production was 52 million pounds greater in 1945 than in 1939 although it receded 4.4 per cent last year due to adverse weather conditions, said James B. Ritchie, president. After wartime came new problems; dairymen must consider the effect of the coming removal of government controls. It will take plenty of harmony, give and take, to bring the great industry through, he said. Of the association activities he praised the three field days held by producers, the four district conferences by butter-makers.

SPEAKING on "Milking for Profit", D. H. McCallum, Alberta dairy commissioner, said there could be no

stability unless milk production was on a sound economic basis. He was not ready to agree with the claim that there was no profit in milking cows, else so many farmers would not engage in dairying.

As either higher prices or reduced costs were needed to increase returns and since price adjustments desired might take time, he stressed the latter approach. Dealing with production he cited dairy costs survey figures to show that labor earnings on 31 farms where butterfat production was above 270 pounds exceeded by 43 per cent earnings on 26 market milk farms with cows averaging below that. Increasing average production per cow could be had through selection and weeding with cow testing. Herds under test averaged 85 per cent above the provincial average of 165 pounds. He advocated better pastures, more grain feeding and more efficient use of labor on dairy work.

While a good market seemed assured for three years for milk, butter and cheese, plans should be made, against the day when surpluses return, to seek an outlet in foreign markets. Mr. McCallum said plans should be laid to place production upon a sound economic basis. Prevention of disease in the herd and the marketing of a better quality product would play their part.

Talks on dairying in Oregon, New Zealand and Australia from first-hand knowledge, were given by Dr. G. H. Wilster, professor of dairying in Oregon State College.

Dr. E. G. Hood, dairy research chief, Ottawa, told of "continuous butter machines" used in Germany, which took in milk or cream and converted it into butter at the rate of from one-half to two tons per hour, according to machine size. They replaced churns and provision could be made for moisture-control and introduction of salt.

### Norwegian Farmers Rapidly Restoring Well Organized Co-ops

NORWAY is basically a nation of seafarers, but in that mountainous country fully 35 per cent of the people live by agriculture and forestry. This farming and pastoral activity is compressed into a mere 2,500 square miles, but, given the land, the Norwegians are among the best and most efficient farmers in Europe. They take to modern ways and use what mechanization is possible on small farms. Co-operatives are widespread and well organized. Destroyed during the Nazi occupation, they are already in the process of being rapidly restored.

As sparse as is Norway's population (slightly over 2,000,000 people), the scarcity of soil means that the farming land is really densely populated. About 880 Norwegians must subsist on every arable square mile. Thus to implement the living from the soil, the people must turn to the sea. In normal times, about 16 per cent of the population was employed in fisheries. However, the production of meat which averaged 100,000 tons yearly in times of peace, was ample for a people who needed a high caloric intake to live in the damp inclement winters and to withstand the exacting demands of lumbering, fishing, grazing, and summer farming.

In the southern river valleys, where most of the farming country is located, production per acre of such basic crops as wheat, barley, hay, and oats is higher than in the most of France and Germany. Only in the far north does it thin out. Even there it exceeds the production per acre of such countries as Roumania.

Discoveries of the use of inorganic salts that convert proteins in the cow's paunch, use of iodinated caseins, injection of hormones, all portended trends that might cause radical changes in dairying, said Dr. J. E. Bowstead, animal science department, University of Alberta. Elimination of disease would lengthen the useful life of dairy cows. Use of more efficient feeds may call for artificial drying of hay to meet more critical demands of food-conscious consumers with milk of guaranteed quality.

Selection of dairy calves at four months by the width of mammary glands was reported at Maryland to have proven a correct indicator of milk production at maturity. There would be a saving through not having to raise the third of the calves that would be low producers when grown.

A mechanical cheese machine, a milk product egg substitute, German synthetic butter, evaporation of milk by freezing, were significant developments which called for dairy research that the National Dairy Council promises to explore, said R. G. Smellie, of Russell, Man., its president. New realization of the great nutritional value of milk indicated further great expansion of the dairy industry, he said.

Dairy producers as the most important link in the industry must take an active part in readjustment of agriculture to prevent it sinking to the low levels of the thirties, said N. R. Clarke of Didsbury, chairman of the producer section. Each community

should promote junior calf clubs and herd improvement.

At the present, butterfat was being produced on many Canadian farms, especially so in Eastern Canada, by unpaid family labor, declared R. H. M. Bailey, president, Dairy Farmers of Canada. The D.F.C. had accepted promise of present levels as floor prices on dairy products, except for butterfat on which four cents increase was sought. With 90 per cent consumed in the Dominion, producers need not worry about a surplus provided enough were paid for the dairy products consumed in the domestic market.

Advantages of the provincial bull exchange policy were outlined by G. S. Black, provincial promoter. He said dairy bulls could be obtained with the 25 per cent assistance, a phase apparently unfamiliar to many who heard of 2,000 beef bulls having been placed in the past years.

#### Officers Named

W. L. Perley, Calmar, chairman of the producers' section was elected president of the Alberta Dairy Farmers' Association, F. C. Wells of Edmonton, chairman of the manufacturers' section, was made first vice-president; R. S. "Barney" Stanley of Edmonton, second vice-president, and D. H. McCallum, secretary.

A. J. Ottewill of Clover Bar was elected president of the producers' section; A. C. Anderson of Calgary, vice-president; J. B. Ritchie, secretary.

Grant Carlyle of Calgary was elected vice-president of the manufacturers, and S. H. Thomas of Edmonton, secretary.

G. M. Gibb, South Edmonton, was elected president of the Dairy Cattle Breeders; A. C. Anderson, vice-president, and R. Dixon of Edmonton, secretary.

S. Frederickson of Lethbridge was returned as vice-president of the buttermakers; A. Ross, Edmonton, secretary. John Mader of Glen Park was returned as head of the cheesemakers; O. J. Davidson, Mountain View, as vice-president; and R. G. Gault, Edmonton, made secretary.

Extension to the utmost of the cow-testing program, increase in the number of dairy field days, and a campaign to promote daily and early deliveries of milk and cream to plants, was asked of the provincial dairy branch by resolution of the association's closing session.

Alberta department of agriculture was asked to continue the policy of restricting issuance of licenses for new creameries to districts not already adequately served; to form more dairy calf clubs for juniors; to purchase the film, "Science of Milk Production," screened by Dr. Wilster of Oregon, for educational use throughout the provinces; and to enlarge the animal pathology laboratory facilities, particularly to do more work on mastitis.

The provincial government was asked to bring the training of learners in creameries and cheese factories under the Alberta Apprenticeship Act. The Dominion government was asked to provide research into the new German method of "continuous butter-making."

Representatives of 15 junior dairy calf clubs attended the convention and followed the discussions with interest. In a judging competition held at the university farm the winners were: First, Ronald Friend of the Rosalind club; second, Lillian Hennig of Wostock, and third, Dorothy Anderson of Springbank. The challenge trophy for teamwork went to the Springbank team, Dorothy Anderson and Neil McKnight.



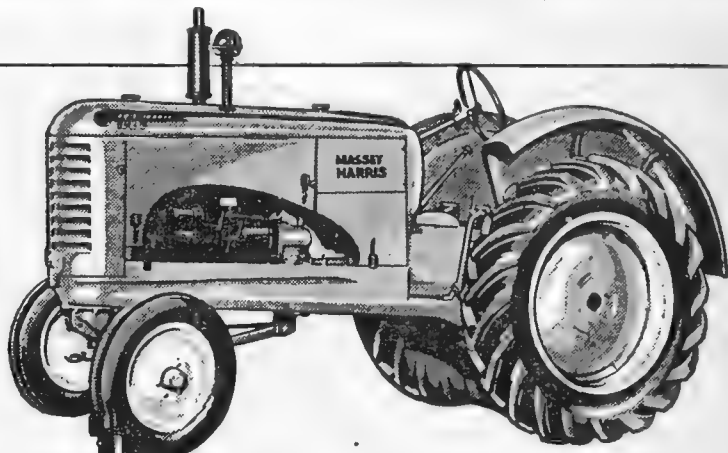
LOOK ahead five, ten, fifteen years. Can you keep on paying high wages and not getting a high enough return for your money? Are you going to continue to lose money through not getting your plowing, seeding, harvesting or threshing done before bad weather interrupts your work?

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implements you can raise more crop with less help. You can get the necessary work done in those short, critical spells of fine weather. You can make extra money doing custom work for neighbors. And remember —when your tractor's not working, it's not eating. In the long run you'll have more money in your pocket if you farm with MASSEY-HARRIS' equipment.

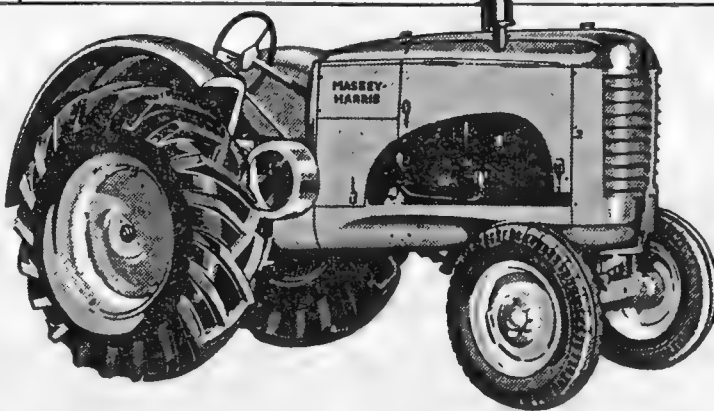
#### MASSEY-HARRIS 102G JUNIOR TRACTOR

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#### MASSEY-HARRIS 102G SENIOR TRACTOR

This three-plow tractor with its six-cylinder Continental motor is the ideal tractor for medium and large size farms. Gives economical power for field or belt work. Heavy duty transmission and sturdy differential are built to give long service with low upkeep cost.



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**Basi-Cop\*** (Tri-basic copper sulphate)—Now introduced for the first time in Canada, Basi-Cop is a neutral insoluble copper compound containing twice as much copper as ordinary copper sulphate or bluestone and consequently is more economical and effective. An ideal spray material for control of fungus diseases of potatoes, sour cherries, grapes, tomatoes, celery, etc. Mixes well with Arsenate of Lead, Calcium Arsenate; dormant and summer oil emulsions. "Green Cross" Basi-Cop is also available as a dust.

**Daylite\* Dust**—Prepared with Tri-Basic Copper Sulphate as the active ingredient, Daylite Dust contains 7% metallic copper. Its big advantage lies in the fact that it can be applied any time during the day as it does not require the action of dew to form copper hydrate. A highly effective dust for tomatoes, pumpkins, cucumbers, potatoes, melons, sugar beets and squash to control fungus diseases. Also available with 5% arsenic for control of chewing insects.

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**Dinitrosol\***—An excellent water soluble spray material for dormant season application in orchards to destroy Bud Moth, Oyster Shell Scale, Pear Psylla, and certain species of Aphids. Used as an eradicator ground spray it is effective against Apple Scab. For information concerning timing, dosage, etc., consult your Spray Calendar.

**Spralastic\*** (Spreader-Sticker)—This improved Neutral Liquid Spreader and Sticker is used with Wettable Sulphurs and Lead Arsenates to produce a highly effective film type coverage on fruit. Spralastic should be used at the rate of 1 1/4 pints per 100 gallons of water in the calyx and first two cover sprays but not later than the second cover spray.

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THE different varieties of wheat, oats, barley and flax have certain advantages and offsetting disadvantages, which must be balanced in determining which will best suit the conditions of a particular location or individual farm. The choice is made easier by the Alberta Varietal Zonation Committee, which each year, after careful study of the many factors involved, recommends one or several varieties for each of the four crop zones in the province. The zone map, with recommended varieties of wheat, oats and flax for 1946, appeared in the February issue of the FARM AND RANCH REVIEW. The list of recommended varieties of barley now is available also, and is as follows:

MALTING BARLEY—O.A.C. 21, Olli in Zones 1, 2, 3.

FEED BARLEY—Zone 1 (dry land)—Newal, Titan.

Zone 2 (dry land)—Newal, Olli, Titan.

Irrigated areas—Newal, Olli, Sanalta, Titan, Trebi.

Zone 3—Newal, Olli, Sanalta, Titan.

Zone 4—Newal, Olli, Titan.

Zone 1, comprising the south-eastern portion of Alberta (excepting the Cypress Hills, which are in Zone 2) is, roughly, the brown soil region; Zone 2, dark brown and shallow black soil; Zone 3, black and gray black soil; Zone 4, gray wooded soil.

From the list of recommended varieties for his zone, each farmer may select the one most suitable for his own farm. The following comments on the varieties, by Dr. A. G. McCalla, department of plant science of the University of Alberta, will prove helpful in making this selection.

**WHEAT:** Red Bobs and Thatcher are recommended in all four zones, with the addition of Canus and Marquis in Zones 1 and 2.

**THATCHER** is high yielding, of good quality, reasonably early, has strong straw, is hard to thresh, but does not shatter, and is resistant to stem rust. It produces a very unattractive kernel, and is susceptible to leaf rust. It has proved itself a very valuable variety.

**RED BOBS** is high yielding, of good quality, fairly early, has fairly strong straw, is easy to thresh and therefore shatters badly, and is very susceptible to the rusts. It produces a good kernel of good weight but becomes starchy or piebald under conditions producing low protein.

**MARQUIS** is taller, weaker, good yielding, excellent in quality, but definitely later than Thatcher or Red Bobs. It is susceptible to rust, and is hard to thresh.

**CANUS** is the highest yielding of the four but it is bearded, fairly late, and shatters rather badly. It has very strong straw, is resistant to root rots and much more resistant to spring frosts than are Marquis and Red Bobs, but its popularity is limited.

**OATS:** Victory is recommended in all four zones, with the addition of Eagle in Zone 1; Ajax, Eagle and Legacy in Zones 2 and 3; and Ajax, Banner and Legacy in Zone 4.

**VICTORY** is the old reliable. An excellent yielder, a plump, heavy kernel, but rather weak straw and somewhat late. Nevertheless, it is still the most popular oat in the province.

**BANNER** is much the same but with a slimmer kernel. Not grown much now except in the north.

**EAGLE**—a Victory child. Much the same but with shorter, stronger straw.

**LEGACY**—earlier, somewhat stronger

## Best Grain Varieties For Alberta Districts



### DIRECTS FARM SERVICE

Dr. Frank J. Greaney, B.S.A., M.S., Ph.D., who has been appointed director of the Line Elevators Farm Service with headquarters at Winnipeg. He is a graduate of Ontario Agricultural College and spent a year at Rothamsted experimental station in England. He has carried out research in root-rot diseases, cereal rusts, and seed-borne diseases of grains. He formerly was plant pathologist at the Dominion laboratory of plant pathology at Winnipeg. Dr. Greaney in his new position succeeds Dr. K. W. Neatby.

straw, relatively poor kernel and somewhat lower yield.

**AJAX**—still earlier, still lower yield under Alberta conditions, but otherwise a good oat. Where oat rust is bad, Ajax is superior because it is resistant.

**BARLEY:** The zone recommendations for barley are given above.

**O.A.C. 21**—weak straw, weak neck, only fair yield, rough awns, but still grown on more acres in Alberta than is any other variety. Why? Because it is the best malting barley yet available. "I predict," said Dr. McCalla, "that in 10 years—perhaps in 5—it will be in the same position as Marquis wheat—going but not gone, and certainly not forgotten."

**OLLI**—very early, fairly, low yield, rough awns, small seeds. Also a malting barley, so early that some farmers forgive everything else, and are justified.

**NEWAL**—high yield, fair strength, smooth awns, excellent quality feed, but very susceptible to loose smut which is not easily controlled. The most popular feed barley in many parts of the province.

**SANALTA**—high yield, only fair strength, smooth awned, very tall, very late, but of excellent quality as a feed. A two-awned, large-seeded barley, very easy to clean. Its lateness will restrict its spread.

**TITAN**—relatively early, good but not particularly high yield, smooth awns, very strong straw, very resistant to loose smut. It holds its head erect like wheat. It is difficult to get the beards off in threshing unless the grain is really dry. The color and appearance of the grain are often poor. Its strength of straw and the way it stands abuse may make it popular where barley is grown on fallow land or where it is combined.

**TREBI**—a coarse short, weak, very high-yielding, rough-awned variety. Almost completely gone from the north,

but still popular in the south, particularly under irrigation.

**FLAX:** Bison and Royal are recommended for Zone 1; Bison, Redwing and Royal for Zone 2; Redwing for Zones 3 and 4.

**BISON**—fairly late, rather weak, fair quality, good yield in the south. Too late for the north. Resistant to wilt but not to rust.

**ROYAL**—late, weak, good yielder in south, quality only fair. Fairly resistant to rust but susceptible to wilt. Too late for north.

**REDWING**—early, strong, good quality, good yield in north, poorer in south. Very small seeds. Resistant to wilt but not to rust.

The following statistics on the values of the varieties from different standpoints were published in the Press Bulletin, a publication of the University of Alberta, in an article by Dr. M. N. Grant, department of plant science. While the actual results may be better in the test plots than on the average farm, still the varieties can be expected to maintain the same standing, in comparison to one another, in other places with similar conditions to those where the tests were conducted. Edmonton is in the black soil region, and usually has a comparatively good rainfall, while the Fallis area has a gray soil.

### Summary of results of tests at Edmonton:

	YIELD (Bushels per acre)	GROWTH PERIOD (days)	STRAW STRENGTH (1 to 10)
WHEAT:	6-year average	6-year average	5-year average
Canus	51.5	112	8.1
Marquis	46.7	112	6.8
Red Bobs	47.0	108	7.6
Thatcher	49.3	109	7.4

## Grass-Legume Mixtures Provide Valuable Pasture

CULTIVATED pastures are becoming more important in the drier portions of the prairie provinces. Land submarginal for grain production is seeded to forage crops and small native farm pastures are often replaced by more productive cultivated pastures. It is important that the most productive crop or crops be seeded on these areas, says Experimental Farm News.

The forage division at the Swift Current station has tested many crops and combinations of crops, comparing them for yield and appraising their relative merits. In addition, co-operative work with farmers and ranchers has provided considerable information on the performance of various crops alone and in mixture under actual grazing practices. The recommendations made here are based on the results obtained from these studies.

Grass-legume mixtures have consistently outyielded grasses seeded alone or in mixture with each other in yield tests. Crested wheat grass should be the principal constituent in any dryland mixture. It is the most drought-resistant of all cultivated grasses and is highly nutritious and palatable, while in the leaf stage. It starts growth very early in the spring and is

OATS:	8-year average	7-year average	3-year average
Ajax	---	---	7.7
Banner	75.6	94	6.5
Eagle	75.3	95	7.4
Legacy	74.5	90	7.3
Victory	76.4	96	6.6
MALTING 3-year	---	7-year	5-year
BARLEY: average	average	average	average
O.A.C. 21	51.9	90	5.2
Olli	52.2	80	7.8
FEED 3-year	---	3-year	3-year
BARLEY: average	average	average	average
Newal	64.4	91	6.1
Sanalta	61.5	101	5.9
Titan	68.8	89	8.4
Trebi	64.4	97	5.2
FLAX:	9-year	7-year	---
average	average	average	---
Bison	20.0	117	---
Redwing	21.9	108	---
Royal	21.5	121	---

### Summary of results of tests at Fallis:

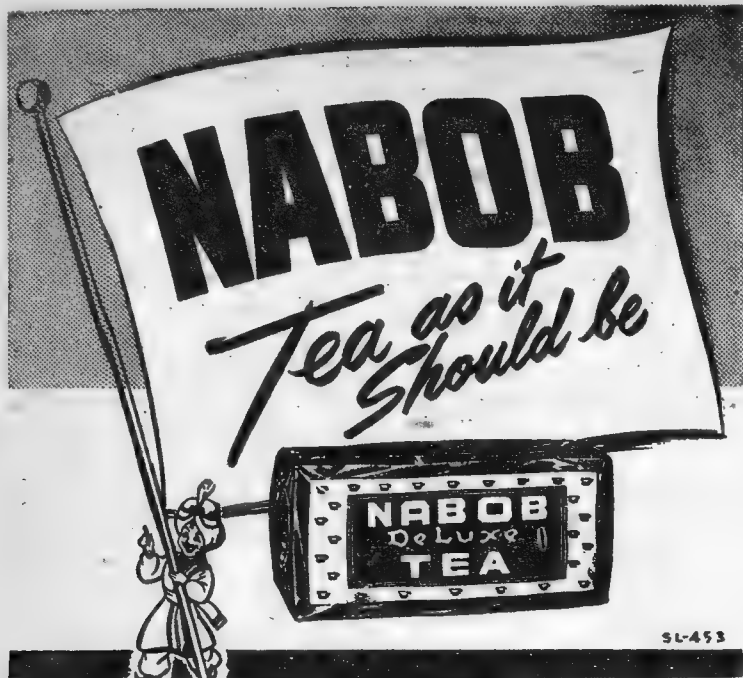
At Fallis, in the gray soil zone, wheat yields, 7-year average, were: Marquis, 32.4; Red Bobs, 34.8; Thatcher, 36.9. Wheat straw strength, 7-year average: Marquis, 8.2; Red Bobs, 8.4; Thatcher, 7.9.

Malting barley yields at Fallis, 9-year average: O.A.C. 21, 37.6; Olli, 36.6; straw strength, 6-year average: O.A.C. 21, 5.6; Olli, 7.5. Feed barley yields, 9-year average: Newal, 45.1; Titan, 37.6; Trebi, 49.2; straw strength, Newal, 7.8; Titan, 7.3; Trebi, 6.6.

Protein content is an important indication of the milling quality of wheat. At Edmonton, 6-year average, Canus had 14.4 per cent protein content, Marquis 15.0 per cent, Red Bobs 14.0 per cent and Thatcher 15.0 per cent. At Fallis, 7-year average, Marquis 11.4 per cent, Red Bobs 10.4 per cent, Thatcher 11.6 per cent.

In oats, height is rather important. The 7-year average heights of oats in inches, at Edmonton, were: Banner 37.4, Eagle 34.0, Legacy 34.9, Victory 38.1.

**Support the Red Cross!**



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*Tea as it should be*  
**NABOB De Luxe TEA**

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*Super Quality Cakes and Pastry*



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## BRIGHTER Homes are HAPPIER Homes

Enjoy the day-like brilliance of a Coleman Lamp in your home. It will make your home brighter, lighter and happier.

The popular Coleman "Regal" is a **SAFE** lamp. Fuel can't spill, flame can't creep up. It is an **ECONOMICAL** lamp, uses 10-cent mantles, burns 94% air, 6% fuel. It is a **BRIGHT** lamp, too, durable and attractive.

**Coleman**

LAMP AND STOVE CO. LTD., TORONTO, CANADA

## Farm and Ranch Housewife

DEVOTED TO THE INTERESTS OF THE RURAL WOMEN OF WESTERN CANADA

### Laundering Rules For Gloves

**Y**ou can win more weeks of wear from your few precious pairs of good gloves if you'll follow a few tried and true laundering rules. First, of course, you must make certain that your pigskin, cape, chamois, doeskin, buckskin, goatskin or calfskin gloves are stamped "washable" on the inside.

If they are, then frequent laundering is advisable. Severe soil makes extra rubbing necessary, which may injure the finish and roughen the surface.

Unless special directions are given by the manufacturer, you'll find the following suggestions safe:

Don gloves and dip hands in mild, lukewarm suds. Squeeze and press them while immersed in the water, but do not rub or brush them vigorously. Exceptions to this hand-in-glove rule should be made in the case of chamois or doeskin, which should be washed off the hands because they soften when wet and may stretch or tear.

When gloves are clean, peel them

off gently from the wrist. By filling the gloves with water while they are still on the hands, you will be able to remove them easily. Then rinse in lukewarm water until no sign of soap remains.

Glove experts advise a final rinse in light soapy water for chamois, doeskin and pigskin. Or, if you prefer, they suggest a little glycerin in the last rinse to soften and restore gloss to pigskins.

Roll gloves in bath towel to absorb extra moisture. Never wring gloves or dry them over a radiator. Just before they are completely dry, rub gently to work out stiffness.

Glass tumblers that have stuck together may be separated by putting cold water in the top one and setting the bottom one in warm water.

Cretonne pockets, thumbtacked to the inside of a dresser drawer, will make handy receptacles in which to keep bobby pins, costume jewelry and other odds and ends. The pockets may be sewed separately or in groups similar to shoe bags.

## Homemaking *By Betty Brown* and Homekeeping

**D**EAR COUSIN JANEY, — On these blustery days soups are acceptable either for lunch or dinner. I wonder if you have ever prepared cheese soup; it is somewhat out of the ordinary, and we like it. Scald one quart of milk with two or three slices of onion. Melt two tablespoons of butter in the top of a double boiler, and blend with two tablespoons of flour until smooth. Stir into this the heated milk and a little salt and cook in a double boiler, stirring constantly, until thick. Into this stir two beaten egg yolks. Cook one minute and add half a cup of grated cheese or more if desired. Egg yolks may be omitted but make a richer soup.

Corn soup can be made in a hurry when you have the canned product. Simmer two cups of boiling water with one can of corn and a slice of onion, for twenty minutes. Press through a sieve. Make a white sauce of two cups of milk, two tablespoons each of butter and flour, and a teaspoon of salt. Add the vegetable pulp and serve hot. One tablespoon of chopped parsley may be added.

Tomato soup is an old reliable, but needs care in preparing, in order to avoid curdling. Heat three cups of milk. Blend 2 tablespoons of butter with 2 level tablespoons of flour, and stir into the heated milk. Meantime, in another vessel, heat three cups (or one can) of tomatoes, a few drops of onion juice, and a teaspoon each of salt and sugar. When hot add a quarter teaspoon of soda, and strain. Stir the milk slowly into the tomato mixture. When serving add a dessert-spoon of whipped cream to each plate and a few dashes of paprika as a topper.

If you care for clams you will like

this soup. Put one raw potato, two slices of bacon, two onions and a can of clams through the meat chopper. Add the juice from the can of clams and two or three cups of water. Boil until the potato is well cooked. Add a pinch of soda, a teaspoon of salt and three or four rolled crackers. Add three cups of hot milk and serve.

A cheap, but nevertheless nourishing and palatable soup, is made from dried beans. Wash four cups of dried beans (preferably the small white ones), cover with water and soak over night. Next morning, drain, put them on to boil with two quarts of cold water. As soon as they come to a boil, drain this water off and throw it away; this prevents the soup from being strong. Now cover again with two quarts of boiling water, add a quarter teaspoon of soda, and boil until reduced to a pulp. Now, press the beans through a sieve, return to the soup kettle and add sufficient water to make the soup about the consistency of cream. Add salt and pepper to taste, and a large tablespoon of butter.

Salmon soup may be made from fresh or canned salmon. If the former, use one pound, wash, put in a saucepan, cover with boiling water and simmer fifteen minutes. Take from the water, remove the skin and bones, and mash the fish in a colander. Put a quart of milk, or half milk and water, on to boil. Rub together one tablespoon of butter and two of flour. Add them to the milk when boiling, stirring constantly until it thickens. Now add the salmon, let it come to a boil and serve. If using the canned salmon, you will require one small can or half a large one. Drain the oil from the salmon and discard it. Mash the salmon evenly and add to the sauce. Serve hot.

Hope you enjoy these soups.

—BETTY

# SELECTED RECIPES

## A GOOD stew is a culinary triumph. SCONES

They may be made from a wide choice of meats, and variety may be achieved by combining different meats. Whatever the ingredients or method, all stews should be good.

If the meat is dredged with flour, it develops flavor, thickens the gravy and gives it a more attractive color.

Variety may also be obtained by the use of different vegetables which vary in flavor, color and texture. Onion always adds interest in flavor but use only one other strong-flavored vegetable such as turnip or cabbage. Add the vegetables just in time to cook tender. Many a stew has been spoiled by over-cooking the vegetables. Additional salt will be required when the vegetables are added.

Stews afford the ingenious homemaker a wide scope for her imagination. Try a cup of sour cream in a veal stew, or a little curry powder in a lamb stew. Marjoram and thyme or a little bay leaf are good seasonings. Experiment cautiously and taste carefully. The flavor should be subtle.

Attractiveness in serving is important to the success of any stew. If the meat and vegetables are arranged on a platter, and the gravy served from a separate dish, it may have more eye-appeal. Omit potatoes from the stew when dumplings, baking-powder biscuits or noodles are served as accompaniments.

### To Make a Good Stew

Cut meat in uniform small pieces. Season well and dredge with flour, if desired.

Brown meat in hot fat. Add only enough liquid to cover. Cover closely and cook slowly at simmering temperature until tender—about 1½ to 2 hours.

Never allow a stew to boil hard. Add the vegetables just in time to cook tender—about ½ hour before serving.

Remove meat and vegetables before thickening the liquid for gravy.

### SPANISH STEW

1½ lbs. veal (breast, shank, flank, neck or shoulder)  
2 onions  
1 cup diced celery  
1 cup uncooked spaghetti (broken into pieces)  
2 cups water  
2 cups tomato juice  
Seasonings

Wipe veal. Remove fat. Cut veal into 1½-inch cubes. Roll meat in flour, brown meat and onion in fat, taken from meat. Add water. Bring to boiling point and simmer ½ hour. Add remaining ingredients, season and simmer 1 hour longer. Thicken with a paste made of flour and water. Six servings.

### STEW SUPREME

1½ lbs. lamb or beef (breast, shank, flank, neck or shoulder)  
2 tablespoons fat  
1 cup chopped onion  
2½ cups canned tomatoes  
¾ teaspoon salt  
1¼ teaspoons spicy meat sauce  
3 medium carrots, diced  
¼ cup chopped green pickle (optional)  
½ cup sweet or sour milk

Cut the meat in narrow strips, 1-inch in length. Brown meat with onion in hot fat. Add tomatoes, salt and meat sauce. Cover closely and simmer 2 to 2½ hours. Add carrots and continue cooking for 20 minutes or until tender. Ten minutes before serving, add the green pickle and the milk. Six servings.

## SCONES

3 cups all-purpose flour  
4 teaspoons baking powder  
1 tablespoon sugar  
¼ teaspoon salt  
½ cup seedless raisins  
3 tablespoons fat  
2/3 cup milk  
1 egg

Sift dry ingredients. Add fat. Mix until well blended, add raisins. Beat egg, add milk and mix with dry ingredients, to a soft dough. Cut in three equal portions, shape each in a round about ½-inch thick and cut each in quarters. Place on a greased baking pan; bake in hot oven, 435 degrees F., for 20 minutes. Makes 12 scones.

## CHICKEN SURPRISE

½ pound spaghetti (unbroken)  
1 tablespoon fat  
1 tablespoon flour  
¾ cup milk  
1 egg yolk  
Salt and pepper to taste  
2 cups finely chopped chicken  
1 cup cooked mixed vegetables  
1 tablespoon chopped vegetables  
1 tablespoon chopped parsley

Cook spaghetti in boiling salted water being careful not to break strands. Drain and rinse in cold water.

Line a deep, greased mould with the long spaghetti. Make a sauce of the fat, flour, milk, egg yolk and salt and pepper. Add chicken, vegetables and parsley. Fill centre of mould with this mixture and cover with spaghetti. Steam on top of the stove for 45 to 50 minutes if made in one large mould or for 20 to 25 minutes if made in individual moulds. If desired, this mould can be placed in a pan of water and baked in 325 degrees F. oven about 50 minutes.

Unmould and serve with tomato or any desired sauce.

## ORANGE BREAD PUDDING

4 slices white bread  
2 tablespoons butter  
¾ cup orange sections or slices  
3 egg whites  
¼ teaspoon salt  
½ cup sugar  
2 tablespoons grated orange rind  
3 egg yolks  
½ cup milk

Spread bread with butter and cut in cubes. Place in greased baking dish and arrange oranges on top. Add salt to egg whites and beat until stiff. Gradually beat in the sugar and add orange rind. Beat egg yolks; add milk and fold into beaten egg whites. Pour over bread mixture and oven-poach in a moderate oven at 350 degrees F., for 40 minutes. Six servings.

## PARTY SQUARES

½ cup fat  
2 cups sifted all-purpose flour  
1 cup brown sugar  
½ cup raisins

Cut fat into flour and sugar with a pastry blender or two knives, until it resembles fine oatmeal. Pat three-quarters of the crumb mixture into the bottom of lightly greased, square cake pan, 8 in. x 8 in.

### Filling—

1 egg  
1 cup sour table cream  
1 teaspoon soda  
½ teaspoon salt  
1 teaspoon nutmeg  
¼ teaspoon cinnamon

Beat egg and add remaining ingredients. Pour mixture over crumbs in pan. Sprinkle with remaining crumbs. Top with ¼ cup of chopped nuts, if desired. Bake in moderately slow oven, 325 degrees F., for 60 minutes. Cut in squares. Makes 16 squares.



## ONLY ¾ OF A CUP OF SUGAR IN THIS DELICIOUS GOLD CAKE RECIPE

It's tender, fluffy—  
made with MAGIC

• Now is the time for all good housewives to be *stingy with sugar*. This delicious Victory Magic Gold Cake calls for only ¾ of a cupful in the cake and none at all in the icing!

Like all Magic recipes, it assures you irresistibly delicious flavor and delicate, fluffy texture, because it's made with pure, dependable Magic Baking Powder.

Save sugar and use Magic for *sure* results and economical baking. 3 out of 4 Canadian housewives prefer it.

**Gold Cake**

3 lbs. butter  
¾ cup sugar  
½ cup milk  
1½ cups flour  
3 tps. Magic Baking Powder  
Yolks of 3 eggs  
1 tsp. flavoring extract

Cream butter; add sugar slowly; add egg yolks—beaten until thick; add flavoring. Sift together flour and baking powder; add alternately with milk to first mixture. Bake in two 7" greased layer-cake pans in moderate oven at 375° F. for 20-25 minutes.

**Sugarless Icing**

Chocolate Frosting: 1 egg white; ½ cup Maple Syrup; ⅛ tsp. salt; ¼ cup Cocoa; ½ tsp. vanilla.  
Put egg white, maple syrup, salt in top of double boiler over boiling water; beat with rotary beater for 9 min. Remove from heat and fold in cocoa gradually. Blend completely. Add vanilla and spread over cake.

MADE IN CANADA

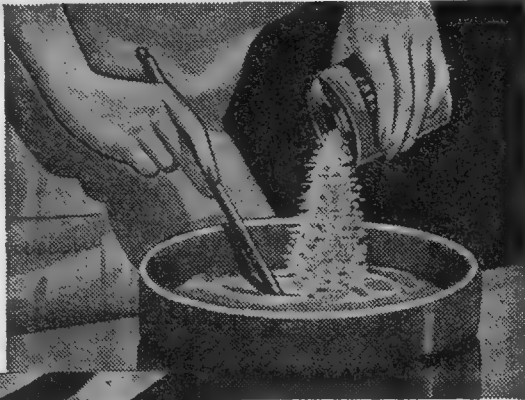
**MAGIC BAKING POWDER**

CONTAINS NO ALUM

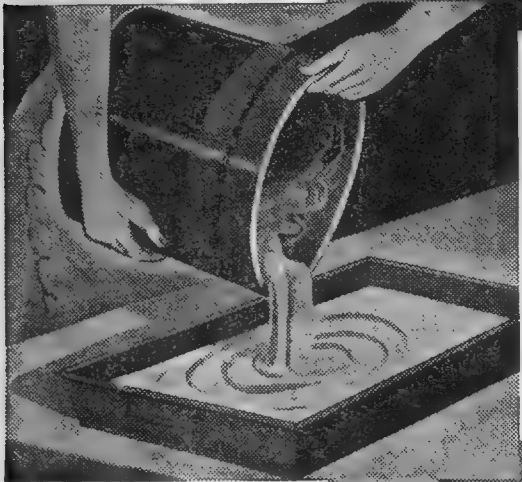
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making soap with **GILLETT'S LYE**  
and at less than 1¢ per bar!

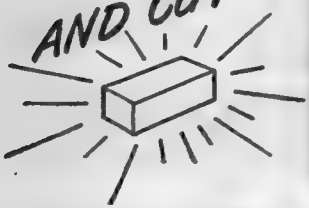
1  
STIR INTO  
HOT GREASE  
UNTIL IT  
THICKENS—



2  
POUR INTO  
PAN AND  
LET COOL—



3  
MARK INTO  
EVEN BARS  
AND CUT



● No trick at all! Enough grand household soap for two months—all from one tin of Gillett's Lye and leftover cooking grease. Takes only 20 minutes—costs less than a cent a bar!

Gillett's saves time and money all along the line, too—lightens heavy work...cuts through grease and dirt...deodorizes and cleanses. And it keeps the out-

house sweet and odorless by **completely destroying the contents!**

Gillett's Lye solution\* is a powerful cleanser—use it in the milkhouse, farm buildings. And it's a fine spray for barn equipment—a protection for livestock. Get some today!

\*Never dissolve lye in hot water. The action of the lye itself heats the water.



**FREE BOOKLET . . .** shows you how easy it is to make soap, keep drains clear, lighten all kinds of housework and cleaning with Gillett's Lye. Tips on caring for dairy equipment, keeping out-houses and farm buildings clean. Send to: Standard Brands, Ltd., Fraser Ave. & Liberty St., Toronto, Ont., for your copy—it's FREE!

MADE IN CANADA

★ ★ ★  
★ ★ ★

**Country Diary**

★ ★ ★  
★ ★ ★

We have always suspected the March Hare went mad trying to predict the weather. At least the winds of March are mad—one minute it is spring and the sunshine beams bright and beckoning. Then the wind blows wild and chill and a flurry of snow comes from the big dark cloud that blows backwards and forwards across this farm three times in a single day. There is squall and sudden calm, a collision of winds from the N.S.E.W. The March Hare would glory in the interchange, it would all make rhyme and reason to him. Of course the March Hare may have some grounds for being mad, for Winter is pulling him back and Spring is tugging him on, and we know who will win.

Well, it is safe to keep ear-flaps and mittens handy. I notice the Lady of the Farm wears a strange turban sort of thing that makes her look like an Arab trader, or would if a burnoose and a camel were added. The hens were thrown into a fit of hysterics the first time she approached them in such unlooked-for head gear.

The small wild feathered things are not so susceptible to shock. They lose their timidity with their independence, and out of a biting wind and into the sanctuary of the house-yard they gather for pantry scraps and table tit-bits. Long ago the rose-bushes have all been cleared of the scarlet berries that reached above the snow, and hungry beaks have stripped the tiny nutty seeds from the tall gaunt weeds along the fences. They seem to have plenty to talk over among themselves, probably cheering one another with hopes of the plenty that may soon come to replace the lean and bitter winter fare.

For thousands of years scientific earthlings have been studying the skies, and at last some learned moderns have found high-power microwave equipment which will discover secrets of the heavens. Star-gazing on my part has simply been an exciting pleasure. I revel in the beauty of the twinkling, jewelled lamps that light up a crisp, clear night, though I know very little of their histories or the facts of their searing fires. I know that those who raise their eyes to the stars find a new uplift of spirit unknown to those who keep their eyes on the ground.

I think, too, many farm women look up at the stars on a windy March night and feel the promise of spring in their hearts; and watch the dark night clouds come drifting over, as they call the men of the family to the supper table set in the midst of warmth and love that is home.

...

## New Ways With Old Felts and Furs

**FELT**, quite plentiful in the homes of people who have a weakness for hats, can be renovated then used again in new style hats or made over into other useful things such as bedroom slippers, calots, mittens, dress belts, and skirt suspenders. Felts not badly soiled can be put in condition with stiff brushing. Dry cleaning solvent or fine sandpaper may be needed on others for removing spots, while some may have to be washed in soap suds. If washed, care should be taken not to pull the felt apart or punch holes. When cutting out a new article, allow roominess

and length. Sew by hand or machine.

Old fur such as old coat collars, cuffs, muffs, trims from remodelling, etc., can be put to good use. To clean old fur, rub sawdust or corn meal moistened with dry cleaning solvent, well into the fur, then brush out and air. To glaze, brush the fur in the direction it grows, with a wet sponge. When dry, comb it, then with a hot iron sweep down over the fur quickly and lightly to glaze it.

Fur can be pieced together in any number of seams and directions, but always match the flow of the fur so seams won't show. Cut fur with a razor blade—not with shears—and from the skin side. Seam by over-handing with waxed thread.

Short-haired furs may be used for coat trims, vamps for bedroom slippers, trim on hats, bonnets, school girl muffs, mitten backs or linings, belts and buttons. Long-haired furs are not quite so adaptable but can be re-used for coat trims or suits.

For make-over and sewing suggestions, write to the Home Economics Division, Department of Agriculture, Parliament Buildings, Edmonton.

...

## A Young Idea



4832  
SIZES  
10-16

A spring-through-summer model so simple to put together, a teen-ager can make it herself! Pattern 4832 has a front-drawstring neckline, new sleeves, inset belt, pert pocket.

Pattern 4832 comes in teen-age sizes 10, 12, 14 and 16. Size 12, frock, takes 2½ yards 35-inch fabric.

Send TWENTY CENTS (20c) in coins (stamps cannot be accepted) for this pattern. Print plainly SIZE, NAME, ADDRESS, STYLE NUMBER.

Send your order to Farm and Ranch Review, Pattern Dept., Calgary, Alta.

## Care of Hands and Feet

THE hands and the feet are often neglected despite the fact that they are so indispensable to our well being. Poor, patient feet! How much ill treatment and neglect they do endure. In hot weather they are bathed frequently and this helps keep them healthy. But in winter they are not always bathed every day as they should be; they are bundled up in heavy woollen stockings, often times there to fret and perspire, or else they are exposed to the elements through sheer stockings and low shoes which offer them no protection.

They are nipped by the frost and visited by chilblains and corns. Callouses and bunions may "adorn" them; nails may be allowed to grow in, and really happy feet are rather rare.

What can be done to protect them? Avoid letting the feet become so overheated that they perspire and then get chilled on very cold, damp days. Remove overshoes and rubbers as soon as you enter a warm place.

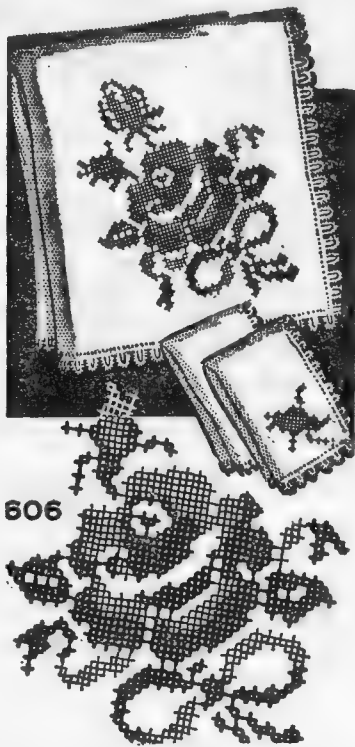
Avoid socks or stockings so short that they cramp the feet. These can do as much harm as shoes which are too small. Soak the feet every night before going to bed, and rub them with alcohol. Keep the nails cut short and cut them straight across or else curve them down a bit in the centre. If a nail starts to grow in there must be pressure somewhere. Lift the ingrowing edges very gently and insert beneath them some tiny pieces of cotton. If corns, callouses or bunions develop again seek the cause and remove it. But meanwhile relieve the pain and the pressure by means of unmedicated pads, which you can get in any drug or ten-cent store. They fit over the offending places, and keep the shoe from pressing. These are harmless, whereas some medications are capable of causing real trouble. Beware of blisters, sore spots, or any kind of eruption. Never wear anyone else's shoes or slippers next to your bare feet. Ringworm and athlete's foot are easy to acquire, but very difficult to get rid of.

Hands, too, are sadly neglected. In winter they are more exposed than are the feet. Chapped hands are not only painful but may also become a very real menace to health. Any break in the skin, no matter how minute, allow germs to enter—germs which may find their way into the blood stream and cause serious or even fatal infection.

Chapped hands, and incidentally lips, should be avoided. It is easier to avoid "chapped" than to heal it. Through chapped lips and broken-open cold or fever sores it is possible to contract very serious diseases if the lips are brought into contact with infected cups, towels, or other lips. The same is true of hands which are chapped and bleeding. Thorough drying of wet hands, the constant use of oily hand lotions—which can be bought or made at home (glycerine and rose-water is an old standby) will help keep the hands from chapping. Mild soaps should be used for washing dishes, hands and clothes.

Never pull a hangnail out but very gently clip it off leaving the stump and tucking it back where it will not catch and bleed. Put a piece of adhesive over it until it has entirely healed. But you never will have any hangnails if you give your hands proper care. Do not cut the cuticle. Keep it soft with oil or cold cream and do not push it too far back. Keep your finger nails in healthy condition by replacing the lost oils very often so they will not become brittle and crack. Some scientists have recently discovered a way to make a waxy finger nail protective liquid which is very beneficial and safe. A ten-cent bottle will last a month or

two. Brushed lightly over each nail from root to tip, it will keep the nails from breaking and give them a chance for the healthy growth they should have. There are now several makes on the market, but it is best to buy one of the tested brands.



In a hurry to have a cloth that's colorful and lovely? Choose this one! The effective design is in quick 5-to-the-inch cross-stitch.

Use these jiffy embroidery motifs on cloth, scarf and other linens. Pattern 606 has transfer of 8 motifs  $8\frac{1}{4} \times 10\frac{1}{4}$  to  $2\frac{1}{4} \times 2\frac{1}{4}$  inches; stitches.

Send TWENTY CENTS (20c) in coins (stamps cannot be accepted) for this pattern.

Print plainly PATTERN NUMBER, your NAME and ADDRESS.

You will prefer it



# "SALADA" TEA

### SAFETY IN THE KITCHEN

Knives lying around the kitchen can be dangerous. Keep them in their place, suggests Mrs. V. Macdonald, Supervisor of Women's Extension Service. Keep them in a knife drawer out of reach of children's exploring hands, or in a knife rack with sharp blades protected and only the handles exposed. Directions for making two simple kinds of knife racks are available in the form of a circular from the Home Economics Division.

Cooking utensils in use provide another too frequent form of danger both to children and adults. Handles of cooking utensils should always be turned away from the edge of the stove. A quick tip-up or pull from hasty motions, or curious children peeking under the covers to see what is cooking, may result in a serious accident. Then there is that dangerous steam when a cover is lifted from something that is cooking. A good rule to follow is to always lift the far edge of the cover first to avoid any rush of escaping steam scalding the face and inside of nose. Be particularly careful with the roasting pan.

To ensure the removal of lipstick stains from handkerchiefs or table napkins, rub with glycerine before washing.



## NEEDLEWORK LOVERS

For the reader desiring the address of a needlecraft magazine, Mrs. L. K. L., Minnesota, writes: "I'm sure the needlework lover would like Aunt Ellen's WORKBASKET. This monthly pattern and direction service brings the latest creations in handcraft and needlework from the country's foremost artists and designers. It is \$1.60 a year in Canada for twelve issues, but no samples are sent because each issue contains large hot iron transfer patterns as well as ideas for such items as dollies, edgings, bedspreads, tablecloths, hats, bags, and baby's things. Orders should be sent to the WORKBASKET, 4388 Westport Station, Kansas City 8, Mo., U.S.A., with currency or money order." If you are not delightfully pleased with the first issue, Aunt Ellen will return your money and you may keep the material you have received without any obligation.

# Why Most Young Mothers

## Use this External Way To Relieve Miseries of Children's Colds



**STARTS TO WORK RIGHT AWAY... KEEPS ON WORKING FOR HOURS!**

Promptly Helps Relieve Coughing Spasms, Muscular Soreness or Tightness, Congestion and Irritation in Bronchial Tubes

It's really dangerous to neglect a child's cold! Most modern mothers know this.

That's why they turn to the time-tested home remedy for relieving miseries of children's colds—Vicks VapoRub. Experience has taught them what to expect when they rub VapoRub on throat, chest and back at bedtime.

Almost at once—in 3 minutes or less—the penetrating-stimulating action of VapoRub (explained above) starts bringing relief.

For hours this grand double-action keeps on working. Invites restful, refreshing, strengthening sleep. And often by morning most of the misery of the cold is gone.

Now when anyone in your family—child or grown-up—catches a cold, do what most modern mothers do, and use dependable

# VICKS VAPORUB

## FIRST for RICHNESS



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CHAIN, and  
DEPARTMENT  
STORES



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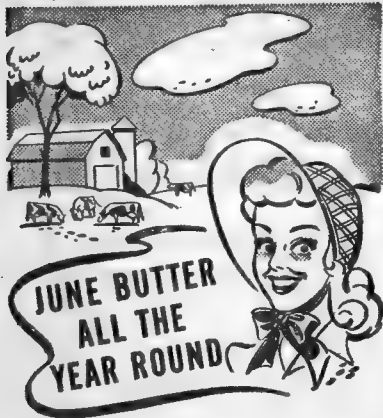
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**BARON SOLEMACHER.** This greatly superior variety produces the largest berries from seed of any variety. Flowers eight weeks from seed. Easily grown. Does not have runners but produces great quantities of finest fruit throughout the season. Has the delicious flavor and aroma of wild strawberries. A showy pot plant and fine for garden. Plant now. Order direct from this advertisement. (Pkt 25¢) postpaid.

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**SAFETY GLASS for Automobiles**  
Any Make of Car  
**THE BENNETT GLASS CO. LTD.**  
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● If your pastures produced rich, juicy June grass all the year round you'd have a continuous supply of golden yellow June butter.

A small amount of "DANDELION" BUTTER COLOR will give your butter that golden June yellow that customers look for.

If you want to sell your butter at the top of the market send for our booklet "Butter Making on the Farm". It will give you plenty of useful information and it costs you nothing. So write now, to Dept. 18

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833 King Street West, Toronto

**DANDELION  
BRAND  
BUTTER COLOR**

MADE IN CANADA • MEETS ALL PURE FOOD LAWS

## Modern War Brides Are Lucky

By EDNA JAKUES

FROM the doorstep of her home overseas until she steps off the train at her destination the 1946 war-bride is looked after like a prize rose.

Of all the 20,000 who have come, "not one has been lost" say the authorities, and out of this vast number of new marriages only 23 wives have asked to be returned to their homes.

Ever since pioneer days, when Canada was just emerging from the wilderness, bride ships have been coming to these shores.

First, it was the French King who sent young girls to Canada to marry the early settlers along the St. Lawrence.

Then the English bride ships came "around the Horn" with wives for pioneers along the west coast from California to Victoria, long before the 49th parallel was thought of. Many west coast people proudly trace their ancestry back to these girls who made that fearful journey of over ten thousand miles by sea.

Now they're coming again by the thousand . . . girls from the British Isles, from Holland and France, from Denmark and Switzerland, Athens, Belgium, British Guiana, New Zealand, Australia, India, Ceylon, Cape Town, Malta, Egypt, and from our nearest neighbor, Newfoundland.

The London War Brides' offices are besieged with applications. Canada House has a standing list of around 3,000 with a first priority rating. Incidentally there are 16 shadings of a first priority.

Some of these so-called "brides" have been married as long as five or six years. Many of them have children. And what the W.P.T.B. is doing to provide comforts for these little new settlers is something. The Prices Board Administrator in Montreal is at his wits end to provide the necessities of life for them.

Imagine a ship's requisition sheet asking for paper diapers by the thousand, rows and rows of nursing bottles and nipples. Pabulum by the carton, baby food of a dozen different brands, milk powder, fresh milk by the hundred quarts, cod liver oil, pink and blue bunny blankets.

They're coming on everything that floats from a corvette to regular troop ships. Three came on a flat-top, the Puncher. Some came on tramp steamers, luxury ships. A few came by air. A special medical is required for this and no child under 16 can cross the Atlantic by air.

January was a big month . . . 563 were booked for Canada. February we expect to receive between 6,000 and 8,000, according to shipping space.

Wives of Air Force men already number 2,217, with 679 children and 7,000 still to come.

The minute a wife registers the long story begins. Once under way the giant wheels of destiny being to turn. She is given everything from the baggage labels to hostel accommodation with meals, from her home to the new home she's headed for.

Once aboard ship, she and her children are looked after by Red Cross workers, and when they dock, immigration officials go aboard to complete the formalities which make them Canadian citizens.

Then they are placed on "Brides' Trains" and start across Canada. It's a long journey from a little English village to Canada, but they're making it by the thousands and look astonishingly fit and happy when they arrive.

They gasp at the plentiful helpings

they receive and the quantities of fruit served with their meals on the trip. For one breakfast, for instance, they may have what would be a week's ration of bacon and a month's ration of shell eggs in England . . . two and one-half slices of bacon and two eggs.

They think it's pretty nice!

### The Dishpan Philosopher

A LOT of us, it seems as though, are letting lots of freedom go. Of freedom to do this and that we have our discourse all down pat. With scarce a thought though we decline our freedom NOT to stand in line. We toil and struggle all life through to do what other people do, and get what other people get at any price of fuss and fret. The Joneses are the snag of course—they clutter freedom at its source, and lead folks on to grab and slave right from the cradle to the grave, to keep abreast the neighbors' pace, and help to standardize the race.

I guess if progress is to thrive ambition must be kept alive. But simpler living with less strain it seems to me would be a gain. And I for one spend happier days since learning freedom works both ways.

### Aunt Sal Suggests:

*Snow, snow will go away,  
And come again some other day;  
But Handy Hints are here to stay,  
To help you at your work and play.*

THE "ricer" is that kitchen utensil usually associated with potatoes . . . but actually it has many uses in the home. Have you ever thought to call on it to squeeze out hot cloths for compacts in the sick room?

Onion juice will add that telling touch of flavor to many foods, but onion juice is also the sworn enemy of scorch . . . so when your iron leaves a "hot mark" on father's best shirt, call on onion juice and cornstarch.

Milk is one of the best bone-building foods there is. And when we remember that 51% of a person's height is achieved in the first two years of life, no wonder that we say milk is the essential food for small children.

Waxed paper has so many good uses for instance did you ever place a neat square of it under the youngsters' plates: very unnoticeable and saves many a stain on the tablecloth.

Have you given your 1946 calendars a coat of clear varnish? Better do so before they get wilted looking. They will reward you by bright, shiny faces all year through.

Our feet do enough for us, surely they deserve some consideration. Why not spend less time fussing with our faces, hair and hands and treat ourselves to a real pedicure

Wooden clothes pegs that are boiled about once monthly will prove more durable.

When adhesive tape or plaster will not adhere because of cold or because it has dried out with age, just heat it for a few seconds to renew its adhesiveness.

## To Save Money, Mix Your Cough Relief at Home

So Easy! No Cooking. Quick Relief.

Even if you're not interested in saving good money, you surely want a highly effective relief for coughs, due to colds. So try mixing it yourself, in your kitchen, and be ready for a surprise.

It's so easy to mix, anyone can do it. Make a syrup by stirring 2 cups of granulated sugar and 1 cup of water a few moments, until dissolved. No cooking is needed. Or use corn syrup or liquid honey, instead of sugar syrup.

Put 2½ ounces of Pinex (obtained from any druggist) into a 16-oz. bottle. Then fill up with your syrup. This gives you 16 ounces of cough syrup, about four times as much for your money. Tastes good—children like it. Never spoils, lasts a long time.

But what you'll like most is the way it takes right hold of a cough. It loosens the phlegm, soothes irritation, and helps clear the air passages. Eases soreness, and lets you sleep. You'll say it's hard to beat, for results.

Pinex is a special compound of proven ingredients, in concentrated form, well known for quick action on throat and bronchial irritations. Try it, and if not really delighted, your money will be refunded.

## WOMEN GIRLS!

Thousands Report  
Grand Relief With

## ORANGE LILY SUPPOSITORIES

Used for 45 years. Safe, antiseptic and cleansing. A local application to relieve inflammation and congestion.

Send 10c for 10 days' trial and descriptive literature.

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Box 191, Windsor, Ont., Dept. 4B



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"I know because I have been that way myself. I have been so chronically tired that I thought I would never feel well again. However, I found that Dr. Chase's Nerve Food soon gave me new pep and energy and put me on my feet."

Tired feelings, indigestion and loss of sleep are quickly relieved by Dr. Chase's Nerve Food.

Ask for the new economy size bottle of

**Dr. Chase's  
Nerve Food**

60 pills—60c.  
180 pills—\$1.50



# New... Faster Rising!

## —ENDS OVERNIGHT BAKING!



Just dissolve New Royal Fast Rising Dry Yeast in water! Starts working in 10 minutes!

### MAKES BETTER BREAD IN "HALF THE TIME!"

**N**EW Fast Rising Royal Dry Yeast is here! The high-speed baking discovery that gives you bread with that old fashioned, home-baked flavor your menfolks love—in less than half your normal baking time!

Easy to use . . . extra-fast . . . new Fast Rising Royal Dry Yeast does away with "setting bread" the night before when you're all tired out . . . eliminates the old-time risks of "overnight baking" when temperature changes might spoil dough.

You do your baking in the day with new Fast Rising Royal so you can keep a watchful eye on the dough. New Fast Rising Royal's speedy action gets to work soon after yeast is mixed with dough—helps you get baking chores done in jigtime!

New Fast Rising Royal keeps for weeks on your pantry shelf . . . ready for quick action whenever you need it.

Use New Royal Fast Rising Dry Yeast! It saves time . . . saves you. At your grocer's.

4 packets in each carton . . . each packet makes 4 large loaves.

MADE IN CANADA

## 1945 AN OUTSTANDING YEAR

NEW INSURANCE  
Including Revivals ..... \$2,831,895.00

TOTAL BUSINESS  
In Force ..... \$13,236,237.00

TOTAL ASSETS  
(69.5% Dom. Canada Bonds) \$2,650,290.00

TOTAL PAID—Policyholders  
and Beneficiaries ..... \$129,770.00

SURPLUS FUNDS...  
Over ..... \$300,000.00

A copy of 32nd Annual Report  
will be mailed on request to  
Head Office, Regina, or to  
any Branch Office.

A STRONG DOMINION LICENSED COMPANY

**FIDELITY**  
**ASSURANCE LIFE COMPANY**

SUPPORT THE RED CROSS!

# FARMERS!

take advantage of the

## FARM IMPROVEMENT LOAN ACT, 1945

*Improve your farm lands, your buildings, increase your herds and generally further the efficiency and productive capacity of your farm.*

Loans for the purchase of livestock, of agricultural implements . . . for the installation, alteration, or improvement of farm electric systems . . . for the construction, repair or alteration of farm buildings . . . for fencing, drainage, improvement, or development of farm lands.

Loans are repayable in instalments over a period up to ten years. Cost . . . simple interest 5% payable on each instalment date.

*The Manager will be glad to discuss your requirements with you.*

**IMPERIAL BANK  
OF CANADA**

*"The Bank for You"*

## "Calf Savers" Remedy For Early Diseases

Dairymen and farmers who have been losing calves each year from scours and other early calfhood diseases will welcome the news that leading calf nutrition authorities have now definitely established the cause of a high percentage of occurrences of scours, pneumonia, navel infection and other early calfhood ailments. These experts have proven that, at birth, the calf is deficient in Vitamins A and that unless the Vitamin A in the calf's blood is increased greatly immediately after birth, the calf is in danger of developing nutritional scours, pneumonia and other related early calfhood ailments. Their research also shows the addition of Vitamin D and Niacin further eliminates the tendency towards scours, digestive ills and rickets.

Based on the practical application of this research, VioBin (Canada) Limited has perfected a complete treatment in capsule form that not only supplies the amounts of Vitamins A, D and Niacin recommended by nutritional experts but also provides the plus value of an additional 20,000 units of Vitamin A during the particularly dangerous first seven days of the calf's life. These capsules are being marketed under the name "Calvita" Calf Savers and each sealed box of 21 capsules is a complete treatment for one calf, with simple feeding directions clearly shown

### PREY ON LIVESTOCK

Exclusive of ticks and mites, more than 200 species of insects are known to attack livestock in Canada. Horse flies constitute a large group about 100 species occurring in Canada.

### LANDRETH ELECTED

W. A. Landreth, Winnipeg, was re-elected president of Manitoba Poultry Council at the annual meeting, held recently. Named to office with him were C. L. Anderson, Winnipeg, vice-chairman, and Dr. J. M. Isa, of the Veterinary Laboratory, University of Manitoba.

### JOHN HAMILTON DIES

A farmer prominent seed grower of Southern Alberta, John Hamilton, 75, died recently at his Vancouver Island home. He won fame as an exhibitor of grains and had won 64 ribbons and trophies at Chicago, Toronto and other large shows. His exhibits of peas and beans were awarded world championships five times at the Chicago International and his farm at Coaldale was one of the show places of the West.

### Cardston Sheepmen Elect Directors

Zone directors were elected as follows at the recent annual meeting of the Cardston and District Sheepmen's Association: M. C. Caldwell, Hill-spring; Thomas Hatch, Woolford; Roy Beazer, Beazer; Fred Gibb, Cardston; T. W. Rasmussen, Delbonita; M. Jensen, Aetna; J. T. Walburger, Mountain View; Evans Bradshaw, Caldwell; Robert Lowe, Carway; Ray Oakey, Boundary Creek. Directors will be selected later for Glenwood, Harrisville and Leavitt districts, and the board will then name executive officers for the year.

Secretary-treasurer Howard Oliver reported that the association had handled some \$50,000 worth of sheep and lambs and an equal amount of wool during the past year. H. J. Hargreaves and W. S. Benson addressed the gathering. Considerable interest is being shown in the new Romlette breed of sheep, and it was announced a limited number of rams of this breed would be available next fall.

The Saskatchewan Belgian Club re-elected Robert Thomas, Grandora, as president. W. A. Miller, Avonlea, is vice-president; Dr. J. L. Millar, Regina, secretary-treasurer. Directors are: L. R. Zuroski, Southey; Joe Baker, Estlin; F. Chase, Plunkett; Jonathan Fox, Jr., Lloydminster; Lyle Doan, Stony Beach; B. H. Moore, Rouleau; W. A. Mitton, Gray; Robert Alexander, Saskatoon; T. Hargrave, Biggar; Alex Weir, Aberdeen.

## THE CORRECT ANSWER TO THE "COMBINE" FIGURE PUZZLE

# 1702

THIS is the total of the figures that the artist used in making the "Combine Puzzle Picture". Under the supervision of the Contest Department, two experts solved this puzzle using an electric adding machine. The figures were checked and rechecked until all doubt concerning the correct answer was removed.

The competition for the prizes was so keen that a second puzzle was necessary, and it has been sent to the tying contestants so that the prize winners can be decided. Apparently contestants, checked and rechecked their work until almost certain of success, hence it is not surprising that more contestants secured the correct answer than there were prizes. Since this is the case all prizes have been reserved for these tying contestants. "Special Prizes" for first correct solutions received will be awarded at the same time as the regular prizes.

One of the conditions of the second puzzle is that all Tie Breakers must reach contest headquarters not later than March 30, 1946, as the complete list of prize winners together with a photo of the winning chart, is scheduled to appear in the June 1st issue of the Farm and Ranch Review.

Great enthusiasm was shown throughout the contest, and Farm and Ranch Review takes this opportunity to congratulate contestants who secured the correct answer. Readers apparently found the "Combine" puzzle extremely interesting and educational and two hundred and forty will find it profitable also. The Farm and Ranch Review wish to thank all those who helped to make the contest such a big success, and once again wish to assure all contestants that the prizes will be awarded with absolute impartiality and in accordance with the rules as outlined by the judges. Here's wishing you luck.

**COMPLETE LIST OF PRIZES WILL BE PUBLISHED IN  
OUR JUNE ISSUE.**

# National Research Council Will Continue Many Peacetime Agricultural Projects

THE National Research Council of Canada, which did invaluable war work in such developments as radar, explosives, aeronautics and the atom bomb, to mention only a few, now is turning its attention to peacetime research. Expanded to four times its staff and six times its budget of 1939, and with greatly increased indirect expenditures and organizing and co-ordinating activities as well, this important body is much better equipped now than it was then to carry out a research program of vital importance to agriculture, industry and the public in general.

In addition to the spectacular wartime developments named above, many of which will be applied to peacetime work, a number of less known projects were started which give equal promise for the future.

Work has been projected on a modification of wheat starch with a view to the replacement of corn starch and other starches in commercial use, by prepared wheat starch. Success in the project depends on the utilization of gluten other than as feed perhaps by its conversion to glutamic acid for food flavors and other uses. Pure glutamic acid is not a commercial product but a crude acid might find a ready sale. Some work has been done on the utilization of agricultural residues such as straw, bran and hulls. Furfural derivatives and their uses have been studied. Tetrahydrofurfuryl alcohol has been found to be promising as an antifreeze.

MODIFICATIONS in bacon cure, refrigeration of ordinary cargo vessels, preservation of shell eggs by oiling; preparation, packaging, preservation and shipment of dried eggs and dehydrated pork; all received attention in order to ship a good product to Britain despite wartime shipping delays.

Resin from milkweed leaves was found to be a substitute for chicle in the manufacture of chewing gum.

The Council at present is engaged in developing a new method of heating houses by floor or ceiling radiant heat, and is investigating the effect of window ventilation in severe weather if floors are heated. Part of this project concerns itself with the measurement of moisture in wheat and the speed with which this moisture moves from one part of the stored wheat to another. This problem is of considerable importance in connection with the preservation of stored wheat from mites. Work is continuing in developing suitable thermostatic control for refrigerator cars.

Research is proceeding on improved safety codes, new methods of house wiring and problems of rural electrification. The war disclosed serious faults in certain lines of electrical machinery and studies to overcome these were undertaken, and will be continued because of important peacetime applications.

THE National Research Council has three main functions. It operates laboratories, at the present time eleven of them across Canada. It acts as adviser to the various departments of government, particularly those of National Defence, Reconstruction and Supply. The third important function is in connection with the organizing

and co-ordinating of national co-operative research programs in which various departments and organizations have an active interest. This third function is performed generally through "associate research committees", a distinctly Canadian mechanism of proven effectiveness. These committees are set up and convened by the Council but they operate as associations of the leading experts in their particular research fields. They receive financial grants, lay out programs, and allocate problems to various laboratories.

Among the 33 associate committees organized under the Council and active during 1944-45 several were directly concerned with work in progress in the National Research Laboratories, as for example, work in aeronautics, corrosion, explosives, food preservation and transport, industrial radiology, petroleum, radio research, substitute

fuels, synthetic rubber, and wool.

Other committees served as co-ordinating agents in broad fields of investigation and directed or guided research activities in which the Council had an extra-mural interest. Among others, these included committees on field crop diseases, fish culture, forestry, grain research, parasitology and weed research.

Medical committees, in effect, constitute a division of the Council's extra-mural activities. More than 200 of Canada's leading research physicians and surgeons are now serving without fee, on these committees, in the planning and direction of medical research which is being carried on in the university, medical schools and in several of the principal hospitals across the Dominion. Great advances have been made in medical practice during the war and the National Research Council has fostered work in this field.

## Successful Fruit Growing On Prairies Requires Good Shelterbelt Protection

WHILE successful fruit growing in the Prairie Provinces is dependent upon, and influenced by, many factors such as soil type, moisture, and other climatic factors, the value of adequate shelterbelt protection is very significant. Shelterbelt benefits of course, are also modified by soil topography, fruit plantation exposure, subsoil moisture, irrigation, Chinook winds, and the skill of the operator, says John Walker, Superintendent, Dominion Forest Nursery Station, Indian Head, Sask.

Some of the specific benefits that result to fruit growing from efficient shelterbelts are as follows:

1. They prevent unnecessary breaking of branches, and other damage to fruit and fruit plants by wind. Snow crush is practically eliminated if fruit plants are planted no closer to shelterbelt trees than 20 to 50 feet.
2. They reduce soil drifting by which mechanical damage to fruit plants and fruit, and soil impoverishment occur. Depending on the type of shelterbelt, there is protection to crops against mechanical injury and soil drifting to the leeward for a distance of 16 to 50 feet for every foot of height.
3. They lessen loss of moisture from the soil as well as through the plants by reducing wind velocity. It has been recorded that evaporation of soil moisture occurs ten times as fast in warm wind as it does in calm air. Lack of moisture is considered to be the greatest drawback to fruit growing under prairie conditions.
4. They help to hold snow and control the movement of it. Shelterbelts also cause delayed melting of snow in spring. Root protection is provided by accumulated snow, and a more uniform soil temperature results.
5. Killing of plants or injury to them by extreme cold is not likely to be as great during winter if dense shelterbelts protect them.
6. Growth in early spring is delayed by well arranged shelterbelts. This is a particularly desirable effect with early blossoming fruits like plums and currants whose blossoms, or newly formed fruits, are so often frozen or damaged by late spring frosts.
7. Within the protection of shelterbelts conditions are favorable in sum-

mer for the flight of bees, and bees are essential for the cross-pollination of most fruits.

8. Tree fruits protected by efficient shelterbelts suffer less from sunscald than unprotected trees. It has been noted at the Forest Nursery Station, Indian Head, that raspberries shaded by shelterbelts on the south side show much less injury from red spider mite than raspberries fully exposed to the sun.

WHILE there would be merit in developing and finding fruit varieties sufficiently hardy to withstand the prairie climate without shelterbelt protection, shelterbelts help to bring about conditions which are almost as important and fundamental as hardiness, that is, delay in blossoming. For the wellbeing of shelterbelts and fruits alike, the latter should not be planted closer to the shelterbelt than 20 feet. By this arrangement there is room for both fruits and shelterbelts to develop. Successful fruit growers invariably have good shelterbelts. If growers are not prepared to care for shelterbelt trees properly they are not likely to give the necessary care and attention to fruit plants and a fruit plantation.

## Increase in Smut Reported "Alarming"

In the 1944-45 crop year, some 317 cars of smutty wheat were marketed in Alberta. This figure represents what is considered an "alarming increase". Such losses could be almost entirely prevented by treating seed prior to planting, almost with a mercury dust such as ceresan or leyosan. Formaldehyde is equally effective as a smut treatment, but may injure germination of the seed. Bulletins giving information on smut treatment may be obtained from the department of agriculture, Edmonton.

## ALFALFA SEED IN 1946

Supplies of alfalfa seed in Canada from 1945 production are little more than required for Canadian use. The limited quantity available for export will be far short of filling export requirements. Because of the exceptionally high demand for this seed in the United States and most Northern European countries, there is no danger of over-production in Canada in 1946.

## Don't Neglect Piles and Colon Trouble

FREE BOOK — Explains Dangers of Associated Ailments

RENAL AND COLONIC DISORDERS and Ailments

Avoid Dangers of Delay

Neglected piles, fistula and colon troubles often spread infection. Learn about rheumatic and other associated chronic conditions. Write today for 122-page FREE BOOK. McCleary Clinic, C376 Elms Blvd., Excelsior Springs, Mo.

## More Than a Laxative Is Often Needed

When you feel out of sorts, nervous and suffer from headaches, gas, bloating, indigestion and lack of appetite, which may all be due to functional constipation — get Fahrney's Alpenkräuter — the time-proved laxative stomachic tonic medicine. Contains 18 of Nature's own medicinal roots, herbs and botanicals. Caution: Use only as directed. Gently and smoothly Alpenkräuter puts sluggish bowels to work and aids them to eliminate clogging waste; helps expel constipation's gas, gives the stomach that feeling of warmth. Be wise — comfort your stomach while relieving constipation. Get Alpenkräuter today.



If you cannot buy it in your neighborhood, send for our "get acquainted" offer on Alpenkräuter and receive—

## EXTRA 60c Value — 6 Trial Bottles of

FORN'S HEIL-OEL LINIMENT—antiseptic—brings quick relief from rheumatic and neuralgic pains, muscular backache, stiff or sore muscles, strains and sprains. FORN'S MAGOLO — alkaline—relieves certain temporary stomach disturbances such as acid indigestion and heartburn.

## MAIL COUPON NOW

☐ Enclosed is \$1.00. Send me post-paid regular 11 oz. \$1.00 bottle of Alpenkräuter and—extra 60¢ value—trial bottle each of Heil-Oel and Magolo.

☐ C.O.D. (charges added).

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## IF RUPTURED TRY THIS OUT

Modern Protection Provides Great Comfort and Holding Security

## Without Torturous Truss Wearing

An "eye-opening" revelation in sensible and comfortable reducible rupture protection may be yours for the asking, without cost or obligation. Simply send name and address to William S. Rice, Appliance Co. Ltd., Dept. 19 W. 5 West Adelaide St., Toronto, Ont., and full details of the new and different Rice Method will be sent you free. Without hard flesh-gripping pads or tormenting pressure, here's a Support that has brought joy and comfort to thousands — by releasing them from Trusses with springs and straps that bind and cut. Designed to securely hold a rupture up and in where it belongs and yet give freedom of body and genuine comfort. For full information—write today!

## INTERESTING

## FACTS ABOUT OIL

# How Science Works a Miracle in OIL'S "House of Magic"



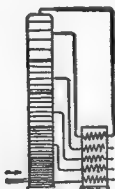
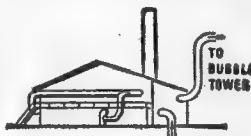
If you were to visit one of Imperial Oil's seven Canadian refineries, it would be like stepping into a veritable "house of magic". Natural crude oil is piped in at one end . . . and after many complex processes comes out in the form of more than 500 different products, ranging from chemicals for synthetic rubber and gasoline and oil for cars, to wax for candles and asphalt for roads!

You begin to see how this miracle happens when you look at a kettle of boiling water. As everybody knows, water has a boiling point of 212° Fahrenheit. At this temperature it gives off steam, which can be condensed to form distilled water.



Crude oil, however, is not a pure substance like water. It is a mixture of many different chemical compounds called "hydrocarbons", each with its own particular boiling point. As a result, when crude oil is heated, it gives off a succession of vapors as the temperature is raised. By keeping these vapors separate and condensing them, crude oil can be broken up into gasoline, kerosene and other oil "fractions".

This is what oil men call a "pipe still". Inside are many hundreds of feet of steel pipe heated by burners inserted through one wall. The crude oil is pumped through the pipe and raised to a temperature of about 725°F. It then enters the "bubble tower".



This is a simple diagram of a bubble tower. It is a tall, steel drum in which the heated crude oil is separated into its various "fractions", which are drawn off through openings in the side. The bubble tower is very hot at the bottom and comparatively cool at the top.

Every two feet or so up the tower there are large steel discs or trays, like big pie-plates, containing liquid formed by condensation of some of the hot oil vapors.



This shows how the trays work, and what happens inside a bubble tower. The hot oil vapors rise from the tray below and bubble through the liquid in the tray above (hence the name, "bubble tower"). The light vapors, escaping from the liquid, rush upward to higher trays. The heavy vapors, however, are condensed and carried off in liquid form through pipes. More and more vapors are condensed as they pass through the trays higher up, and are drawn out through the sides of the tower at various levels.

The typical Imperial refinery, with its bubble towers and other fascinating processes is truly "a house of magic". Out of it comes gasoline to power our cars . . . fuel oil to heat our homes . . . kerosene for the farmers' lamps and stove . . . lubricating oils to keep the wheels of industry and transportation rolling . . . waxes for floors . . . asphalt for roads and airport runways . . . even basic ingredients for Miss Canada's cosmetics. All the crude oil is utilized to bring to modern living a total of MORE THAN 500 DIFFERENT, USEFUL PETROLEUM PRODUCTS!



# IMPERIAL OIL LIMITED

A modern refinery  
"bubble tower"

# Farmers Want Electric Power Many New Uses Outlined

"Cows and Kilowatts" was the topic of addresses in Edmonton February 27 and Calgary, March 1, by Hobart Beresford, head of the department of agricultural engineering at the university of Idaho and one of the outstanding authorities on rural electrification in North America.

With the aid of charts, he explained how electricity pumped water, washed clothes, cleaned grain and did other work on Idaho farms at a cost of only about one-quarter that of farm labor for the same work. Electricity had reduced the drudgery and increased the profits for each hour of labor required.

Each year has brought new labor-saving electrical equipment for the dairy farmer. Among the newest items were a power-operated gutter cleaner and pumps for transferring the liquid manure to a pit or sump some distance from the stable. Commercial units were available, or the equipment could be home-made. Ultraviolet lamps in the stable were another innovation. The lamps reduced bacteria and eliminated objectionable odors and their use would undoubtedly be extended further for farm needs, Mr. Beresford predicted.

Increased profits through use of electricity had met with more enthusiastic use of electricity on Idaho farms. As time went on the users ceased to worry about the cost of current; instead, they used all the electrical equipment they could fit into their farms.

## Delay Protested

Protests at the slow progress of electrification of Alberta farms were expressed by farmers at Calgary, during a discussion period. They were ardently sold on electricity: what they now wanted was to get it in their own communities. One farmer said that in his district they had a 100 per cent sign-up requesting power lines over a year ago, but they had still heard nothing about actually getting power. Frustration of himself and his neighbors was so complete they "daren't mention rural electrification any more. I'm glad my wife isn't here today," he declared.

Officials of Calgary Power and Canadian Utilities companies replied that shortages of wire, poles and other materials prohibited making extensions as rapidly as they wished. A Canadian General Electric employee, verifying the acute shortage of wire, said his firm at Calgary had been able to obtain only one-tenth of the wire it needed so far this year to supply its customers.

Mr. Beresford tended to believe private utilities had given better farm electrification service than government utilities, in his area in the United States. He had visited the rural electrification projects at Olds and Swallow in Alberta and was impressed with the sound beginnings there. Increased supplies of materials and settlement, one way or another, of the uncertainty regarding the status of private utilities in Alberta; would be followed by rapid progress in rural electrification, he predicted.

## Favor Early Merger Of Farm Groups

Plans for a merger of the Alberta Federation of Agriculture, Alberta Farmers' Union and United Farmers of Alberta were furthered at a meeting of the contact committee for the three organizations on February 25 in Edmonton.

A seven-member committee was appointed to draw up the basic principles of the new organization and report to the full contact committee early in April.

"A frank discussion of the problems involved in bringing about the merger showed the whole tenor of the meeting to be in favor of the merger taking place at the earliest possible date," said a contact committee statement.

## Sun Life Reports Record Year in 1945

One hundred million dollars increase in assets, largest in any single year since the first policy was written 75 years ago, two hundred and forty-one million dollars of new business, with over ninety millions paid to policyholders during 1945, and an increase in policyholders' dividends, featured the statement of the Sun Life of Canada—the most outstanding in the Company's history—at the 75th annual meeting held recently. Total assurances in force now stand at the record high figure of \$3,390,372,000, total benefits paid since organization are now \$1,800,672,000 while assets now amount to over one and one-quarter billion dollars.

The financial statement presented by Arthur B. Wood, president and managing director, said that of the company's total assets, 52.2 per cent is held in government bonds of Canada, United States, Great Britain, and other allied nations. The remainder of the assets, with the percentage of each to total assets, consist of the following—municipal bonds, 3.8%, industrial bonds, 3.7%, railroad bonds, 0.4%, public utility bonds, 15.2%, preferred and guaranteed stocks, 1.8%, common stocks, 8.4%, mortgages, 4.6%, real estate, 1.4%, policy loans, 4.6%, cash, 1.5%, other assets, 2.4%. All of the assets appear in the statement at book values, in no case exceeding cost. The market values of both bonds and stocks are substantially in excess of the book values, but no credit whatever is taken in the statement for this excess.

Milk sugar extracted from whey and fed to the penicillium mould from which penicillin is refined, will be used to produce the new wonder drug, streptomycin, effective in controlling such diseases as typhoid and dysentery.

## Geese Easily Raised On Cheap Feeds

THE raising of a flock of geese on the farm can be made a profitable undertaking because geese are comparatively inexpensive to feed and are almost immune to diseases common to other barnyard fowl. They require only cheap houses and the cheapest feed the farm produces.

Where there is plenty of grassland, breeding geese will get along nicely from early spring to late in the fall with little grain feeding. Geese are grass eaters and will leave grain in the feeding trough to pluck the tender grass when it is available.

During the winter months, when there is snow on the ground and fresh green feed is not available, the geese should be supplied with a handful of mixed grain each day and as much well cured alfalfa or clover hay as they will consume.

If the hay is cut green and well cured, they will eat both the leaves and stalks. They prefer the leaves, and an attempt should be made to provide them with as much of this as they require. They will eat leaves of lettuce, cabbage, potato peelings, turnips, carrots or almost any green vegetable.

When this green feed is fed, it should be supplied fairly liberally and the grain ration restricted accordingly. Grain may consist of oats, barley and wheat of equal parts, and the best time to feed it is early in the evening.

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**BUT**

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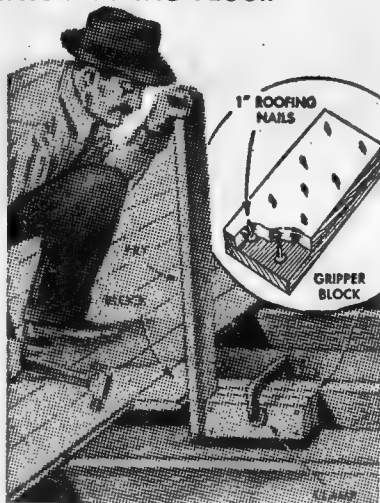
By Courtesy of The Popular Mechanics Magazine

### CLEANING KEROSENE STOVE WICKS

To clean the wick of a kerosene stove or heater, first wipe the charred end with a cloth and then rub it over a piece of screen tacked to a wooden frame. Before replacing the wick, wipe the shield enclosing it.

★ ★

### ASSURES TIGHT SEAMS WHEN LAYING FLOOR



WHEN laying a new floor where a sub-floor is not used, this gripper block will provide a rigid stop for a pry bar used to force warped flooring boards into position before nailing them. The block is made from two 3/4-inch pieces, one of which is drilled to take roofing nails that project through it slightly. The other piece is screwed in place over the nail heads to hold them. In use, the block is attached to a joist with a C-clamp so that the projecting ends of the nails sink into the joist to prevent slipping. A piece of 2 x 4-inch about 3 feet long is used as a pry bar. To avoid damaging the tongue and groove on a floor board, place a short block of flooring between the pry bar and the board.

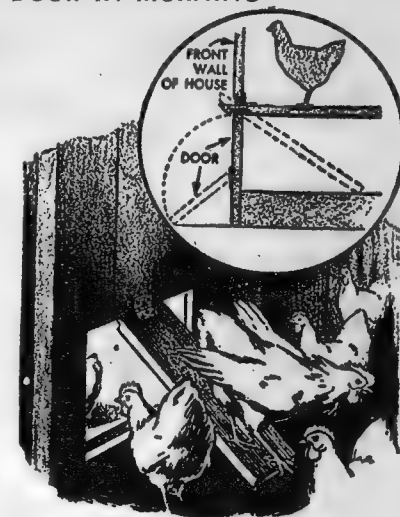
★ ★

### TOOLS STORED IN OILED SAND TO PREVENT RUSTING



To keep his spades, pitchforks and other tools clean and free from rust, one farmer sets them in a container of sand, where they always are ready for use. This also prevents the possibility of accidentally tripping over or stepping on tools left standing against a wall. A large basket, box or cut-down oil drum will do for the container, which is filled with sand mixed with a small amount of waste crankcase oil. The sand not only prevents rust, but also cleans the tools after use.

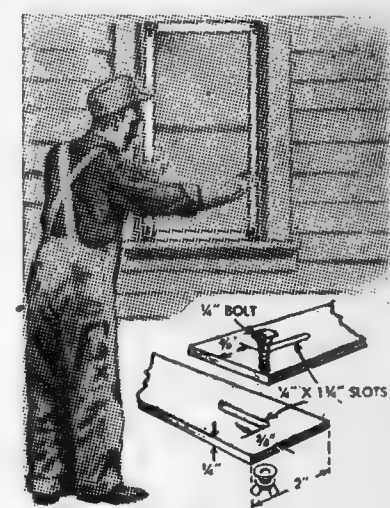
### CHICKENS CAN OPEN COOP DOOR IN MORNING



THIS automatic door opener will let chickens out of their coop in early morning without someone opening the door. As chickens bestir themselves at daybreak, they crowd around the door, and one of them will hop up on the trigger board allowing the door to open. The trigger is a 3 or 4-inch strip notched on the underside to fit over the top of the door and hinged to the upper edge of the door opening so that it projects inside the coop. Spring hinges will open the door when trigger is tripped, or regular butt hinges can be mounted so as to give enough tension to spring the door open.

★ ★

### GAUGE MEASURES WARPED FRAME TO FIT STORM SASH EXACTLY



WITH an adjustable gauge made of light wood, storm windows can be fitted exactly into old sash frames that are out of square. The gauge consists of four strips of 1/4 x 2-in. stock cut 1/4 in. shorter than the dimensions of the largest window to be fitted. The strips are assembled to form a frame that fits into the window, a slot being cut near the end of each strip to take a bolt, which is held by a washer and wing nut. The gauge is fitted to the sash frame and used as a pattern for the storm sash which is cut to fit exactly. After using the gauge on the largest window, the strips are shortened to fit loosely into the next largest window frame and so on until all windows have been fitted.

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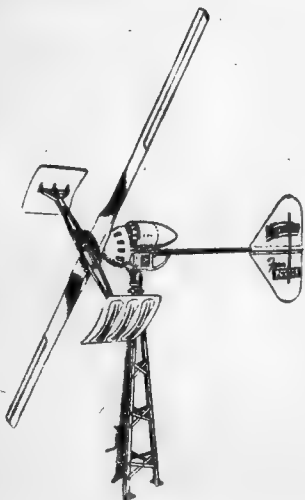


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## Timely Advice Offered Beginner In Beekeeping

**B**EFORE making a start in beekeeping some consideration should be given to the abundance of nectar producing plants growing in the district. In some sections of the semi-arid prairie there are not enough native flowers for profitable beekeeping. This problem can often be overcome by providing some sweet clover which is left to produce seed. In some districts there is sufficient sweet clover growing on the roadsides for several colonies of bees or there may be an area of waste land where sweet clover may be scattered to provide a volunteer crop each year without attention. A field of alfalfa left for seed within a mile of the hive is usually sufficient pasture for an excellent crop of honey. One objection to alfalfa honey is that it granulates too readily for best winter stores.

Buckwheat, which produces a very good dark honey in humid areas has been found to be unsatisfactory at the Dominion Experimental Station at Scott, Sask., says E. Van Nice, where rainfall is scant. In the park belt, or reasonably heavy-wooded areas, there is often plenty of fireweed growing wild which is an ideal nectar-producing plant.

If there is satisfactory flora for honey production the inexperienced person has a chance of success providing he first makes a study of literature and books to familiarize himself with the work and, if possible, he should get some experience with a successful beekeeper.

When obtaining equipment, it is best to make sure that all hives and frames are standard Langstroth so that frames and supers will be interchangeable. The purchase of an established colony from a reliable neighbor is an excellent way to get a start providing the colony contains a young queen and sufficient bees to cover six or seven frames. The price should not exceed \$10, including an extra super with frames of empty comb or foundation. The most common way, however, is to get new equipment during the winter and have it ready for a package of bees, with queen, ordered to arrive about May 1 to 15. Later packages seldom prove profitable as there must be time to build up a strong colony of young bees before the main honey flow. The cost of equipment for beginning, including the complete hive with frames, lid and floorboard, should not exceed \$15. Other equipment included in this cost is a queen excluder, a bee escape board, a No. 1 smoker and a bee veil.

It is well to understand at the beginning that swarming must be controlled. This is not difficult if regular inspection is made once per week during mid-summer and plenty of room is provided by adding supers as necessary. Inspections require very little time if the attendant has a thorough knowledge of proper conditions in the hive and how to correct irregularities. Free literature is available at any Dominion experimental station or university.

**B**EESKEEPERS should be ready for any emergency, and now is the time before the spring rush begins to think back on last year's operations, and to do now all the things that were planned when working with bees during the summer. Equipment and combs that need repairing and replacing, should be done without delay. Rickety boxes, poor combs, and other faulty

equipment should not be used in the coming season.

Orders for new equipment or for package bees should be placed without delay either direct with the shipper or through a local beekeepers' association.

An important item in 1946 is the sugar supply. In the past beekeepers have been allowed sufficient sugar for spring feeding and possibly many are of the opinion that permits for the purchase of sugar will be again available. Beekeepers have been advised, that no sugar would be allowed for spring feeding in 1946, and until this ruling of the sugar controller is revised or rescinded beekeepers must depend on honey for their spring requirements.

### Division of Strong Colonies of Bees Increases Honey Yield

**B**EES colonies in the spring are referred to as weak, medium or strong. These terms are indefinite, and the Dominion Experimental Farm apiary at Brandon adopted a rough system of expressing them in actual figures instead. The number of frames covered by bees, the number of frames of sealed and the number of frames of unsealed brood in a colony are estimated and expressed numerically as, for example, 8-2-2. On such a basis, three, six or twelve frames covered with bees may be taken as a weak, medium or strong colony respectively.

The weak colonies generally are united with medium colonies, or if retained as separate units are not considered as potential honey producers for that season. Medium colonies, in the spring, will build up or even surpass their peak population point at the beginning of the honey flow, by about June 15. Strong colonies may or may not develop swarming tendencies in early June.

During the four-year period, 1942-45, all colonies with six or more frames covered with bees in the spring were divided into two equal parts about the middle of May. For example, a colony estimated to contain 8-2-2 frames of bees, sealed and unsealed brood, would be divided into two units of 4-1-1. A queen was introduced into the increase portion at the time of making the division.

The divided colonies yielded an average of from 100 to 149 pounds of honey, depending on the race of bees, during the four-year period. The parent colonies yielded approximately the same as similar-strength colonies which had not been divided. Therefore the additional average production from the extra divisions or nuclei, less the cost of the queens and the cost of the labor involved in making and manipulating the divisions was extra profit for the beekeeper.

Further experiments in progress tend to indicate that the division may be carried one step further with very strong colonies by dividing such colonies into three equal divisions without materially affecting the production capacity of the parent colony or the two divisions. Apparently there is a population peak, within the colony, above which surplus nectar storage is not increased and may actually be decreased.

"Johnny" Franklin, one of Alberta's best known pioneer ranchmen, died at his home in Macleod early in February at the age of 82.

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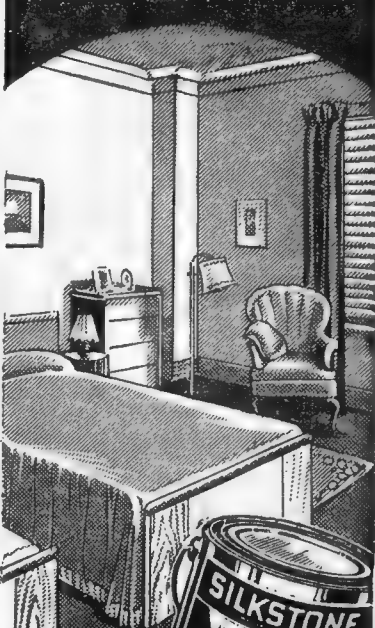


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## Matthews Ships 33 Bulls to Texas

**A**BERDEEN-ANGUS cattle from Highland Stock Farm, Calgary, are making quite a hit in the Lone Star state, says the Market Examiner. Last week Chas. C. Matthews owner of the breeding establishment loaded out

33 yearling bulls of his own breeding which were billed to A. Carruthers, San Angelo, Tex.

This is the first shipment to Mr. Carruthers, but his ranch is not far from Ray Martin's at Balmarie, and he was evidently favorably impressed with the Matthews cattle which have been sent to Mr. Martin. In the last six years 125 bulls have been sent from Highland Farm to Texas, and repeat orders indicate that the Alberta cattle must be giving excellent satisfaction.

## PINEAPPLE GUAVA

Produces Rich Luscious Fruit on Dwarf Plants

This rich tropical fruit is produced on plants that are highly ornamental too. A fascinating and novel house-plant with its glossy green and silvery-gray foliage. Flowers as large as 1½ inches across, white to purplish crimson with crimson stamens; followed by delicious aromatic fruit about 1½ to 2 inches long. Flesh is translucent white of pronounced pineapple flavour and seeds so small as to be unnoticeable. May be used raw, cooked, or in jams and jellies. A bowl of fruit will fill a room with delightful fragrance. Easily grown from seed. Full directions supplied.



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Nothing so successful in killing rats has ever been known. Rats are attracted to it... die in droves! 30 years of success. At drug, hardware and general stores. Ask for RAT-NIP. **LIQUID VENEER CORP.,** Ft. Erie North, Ont. 35¢ a tube

## Want Sugar Factory In Taber District

**T**ABER Irrigation District beet growers declared outright for a sugar factory at a meeting of Taber-Barnwell growers last week.

The Taber-Barnwell beet crop was 100,000 tons in 1945, and this aggregate could easily be raised by 25 per cent it was pointed out, and still assure plenty of time to deliver and process before killing frosts arrived each year.

The meeting expressed determination to obtain the plant in the near future and decided to give the company now operating at Lethbridge first opportunity of providing the plant. If the sugar company did not feel able to undertake the work action would be taken probably under the Alberta Co-operative Marketing Act, growers declared.

Regret was expressed at the resignation of the veteran secretary, Ted Sundal, who explained he was unable to continue business because of ill health, and J. C. Barton was appointed as temporary secretary.

## Western Breeders On Hereford Board

The annual meeting of the Canadian Hereford Breeders' Association, held in Saskatoon, elected a majority of western Canadians to office: President, J. B. Palmer, Marsden, Sask.; vice-president, R. W. Rutherford, Winnipeg; directors—from Alberta, W. A. Crawford-Frost, Nanton; Frank Collicutt, Crossfield; William Moore, Garfield; Roy Bond, Irricana; from B.C., Len Wood, Armstrong; from Saskatchewan, Wilbur Catley, Craven. Second vice-president is George Rodanz, Toronto, and W. S. O'Neil, Denfield, Ont., is a director.

Growth in the organization was indicated in a steady increase of memberships and registration since 1942. Membership jumped from 947 in 1942 to 1,756 last year.

## To Re-open Spillers' Calgary Flour Mill

Spillers flour mill in East Calgary, closed since October 5, 1933, will be re-opened this summer, probably under new management. The 2,500-barrel-a-day capacity mill will employ from 50 to 100 men. There is a world-wide shortage of milling capacity. An order for 50,000 barrels of flour for shipment to China was turned down recently by western millers, who were already behind on their orders.

## Red Deer Beekeepers Order 2 Million Bees

One hundred and fifteen orders, totaling two million bees, were placed through the Alberta department of agriculture by beekeepers from Red Deer and district. The bees are brought in from the United States.

Between 50 and 60 beekeepers attended the meeting of the Red Deer Beekeepers' Association, when W. G. LeMaistre, provincial apiarist, spoke on bee raising, and when the orders for bees were accepted.

Canadian Utilities Ltd., head office in Calgary, held its annual meeting in that city in February. Approximately 22,000 customers in towns, villages and farms of Alberta now are served by this company, an increase of 1,500 customers having been recorded in 1945, it was stated.

## Registration Controlled

**T**HE registration of purebred livestock in Canada is governed by the Livestock Pedigree Act which is administered under the authority of the Dominion Minister of Agriculture. Breed associations and the Canadian National Livestock Records are organized under the act, with the constitution, by-laws, and regulations of each subject to the approval of the minister. Through the assistance and supervision of the Dominion Department of Agriculture, and by measures adopted for the correction and control of irregular practices and abuses, the reliability of certificates of registration for purebred animals is maintained.

All applications for registration by members and non-members of the breed associations operating within the Canadian National Livestock Records are checked by the chief registration officer, who also seals and signs the official certificates of registration.

Assistance is given in the establishment of definite means of identification for all registered animals, in the promotion of breed-type classification projects and in establishing adequate safeguards in respect to breeding practices and registrations connected with purebred animals produced by artificial insemination. All amendments to the constitution and regulations of breed associations are subject to the approval of the minister.

For the year ended March 31, 1945, the number of registration certificates approved were: — horses, 1,964; cattle, 60,338; sheep, 20,702; swine, 16,758; foxes, 4,445; dogs, 10,921, and goats, 166. The number of purebred animals exported was 9,537 and the number imported was 648.

## Cream Graded Down For Bitter Flavor

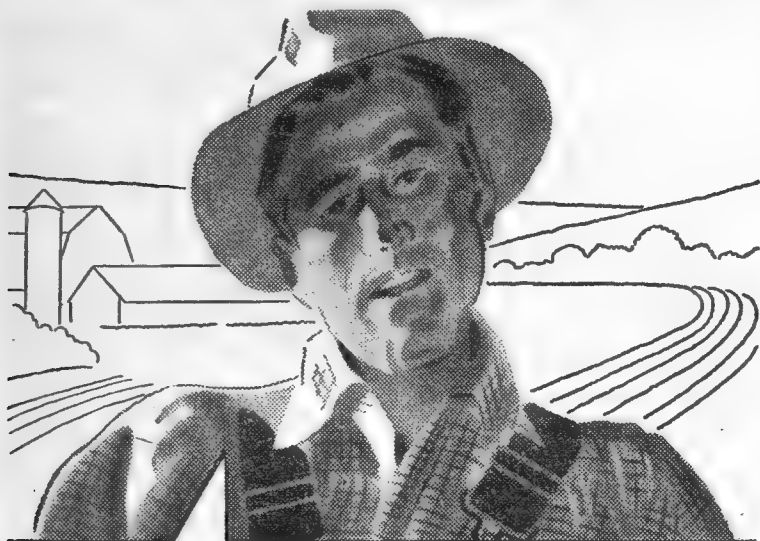
Many dairy producers are losing money at the present time as a result of a bitter or rancid flavor in churning cream. Much of this cream is being placed in second grade because of this defect.

Bitter flavor is most common in the winter when the cows are on dry feed or when many of them are approaching the end of their lactation period. The milk from stripper cows and cows well advanced in lactation often show this tendency towards rancidity. It is suggested that such cows be dried off, and if this is not practicable, their milk should be kept separate from that of other cows in the herd.

It is easy to detect the cows responsible for the defect by holding individual milk samples from each cow at a low temperature for at least one day, preferably two, and then tasting the samples. In storing cream it is important that temperature fluctuations between body temperature and freezing be avoided. Most milk and cream will develop a bitter or rancid flavor if it is cooled, then warmed a little above room temperature, and again cooled for storage.

## Supervised Muskrat Trapping Program

Four supervised muskrat trapping areas are being organized in Saskatchewan, similar to the Manitoba plan, where trappers and the game branch of the department of natural resources will co-operate to supervise muskrat trapping in order to save the animals from extinction.



## "Weeds won't steal my crops!"

Uncontrolled weeds are the farmer's greatest crop thief. They can reduce a crop by one-fifth and increase labour by one-half.

You can save yourself work and money by using clean seed. This prevents the introduction of new weeds. Your agricultural college or experimental farm will tell you the best way to control weeds already in your soil... a service that is yours for the asking.

The Bank of Toronto offers farmers an equally important service—that of money. Now, as during the past 91 years, this Bank's friendly managers are ready and willing to aid responsible farmers with loans.

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# Soil Moisture Promises Good '46 Crop Start

THE precipitation which occurred over the prairies last fall between harvest and freeze-up, for the three prairie provinces and weighted for wheat acreage, averaged 102 per cent of normal, all according to the records from 700 Searle rain gauge stations. Fall moisture is stored in the ground, usually distributed quite evenly from just below the surface to about 6 feet in depth, and remains there until used by the roots of the growing plants, but there is little plant growth on the prairies during the fall so most of the moisture is preserved until spring. Fall moisture, therefore, forms an important reserve for the use of the next year's crop. Normal fall moisture is usually followed by an average yield to the acre, whereas less than normal fall moisture is usually followed by a less than average yield.

Of the past 45 years, 29 years had better than average moisture during the fall. In 22 of these 29 years a better than average yield to the acre was produced. Altogether, then, the chances are in favor of an average yield for 1946, or around 17 bushels to the acre, assuming, of course, that average rains fall during the growing season.

## 20 Ex-Servicemen Plan Saskatchewan Co-operative Farm

SIXTEEN sections of Saskatchewan's richest soil, on the old Matador ranch, 50 miles north of Swift Current, will be the site this spring of a new experiment in putting the veteran on the land. About 20 interested veterans will be the experimenters in this joint-work, joint-profit idea.

The veterans first will attend a three-weeks' course to learn more about co-operative fundamentals and farm management. Then they will pool their land act grants. The Saskatchewan government will guarantee the veterans against any nature-hazard loss of the \$2,320 land act grant each will invest, provided Dominion veterans' affairs officials agree. Recognition of the co-operative farm project as a legitimate undertaking under terms of the veterans' land act, and the payment of regular allowances to the veterans while they attend the farming course, is being sought from Ottawa.

Accommodation of 20 veterans is planned. For efficiency it is proposed to divide the 16 sections of land into three units with groups of six or seven veterans to a unit. All may live in one community. Some or all of the equipment for the farm may be purchased from War Assets Corporation.

## Increase Shorthorn Grant for Clubs

The Canadian Shorthorn Association meeting at Winnipeg allocated an additional \$200 for calf club work in Alberta. Alberta directors were congratulated by the parent association for the fine work done last year, and J. W. Durno of Calgary, western fieldman of the Association, was praised for outstanding work among breeders during 1945.

John Cross of Nanton, president of the Alberta Shorthorn Association, and Geoffrey Thomas of Edmonton, first vice-president, were the official delegates from the provincial association.

Provision has been made for two regional shows in Alberta this year, one at Vermilion and one which may be held in conjunction with the Red Deer fair.

## Best Flax Varieties For Fraser Valley

DURING 1945 a group of six fibre flax varieties were grown in carefully arranged experiments at Agassiz, Matsqui, Cloverdale and Ladner, B.C., to determine the varieties best suited to these localities. The sorts included represented the most outstanding material from the larger collection grown the previous year. These included Stormont Gossamer and Stormont Cirrus, the former being the first variety to be grown on a commercial scale in the Fraser Valley. In addition there were four representatives of the Liral series, notably Crown, Prince, Monarch and Dominion, the last named being the variety that comprised almost the entire 1945 commercial acreage, says M. F. Clarke, Experimental Farm, Agassiz, B.C.

In every instance a shorter than average crop resulted in view of the unusually dry season. Quality and fibre content were, however, surprisingly good; the principal disadvantage from the experimental point of view being that rust failed to develop and it was not possible to determine resistance to this disease.

In summing up the results for these trials on the basis of per cent fibre and total yield of fibre per acre, the order of yield is Cirrus, Prince, Crown, Monarch, Dominion and Gossamer in declining order. According to length of fibre Cirrus again ranks first by a very slight margin, while Gossamer and Crown are tied for second place followed by Prince, Monarch and Dominion. Fibre length was short in all instances and differences between varieties were too small to be considered as significant. Yield differences are more striking inasmuch as Cirrus and Prince are significantly better than Stormont Gossamer and Liral Dominion at three testing stations, a trend which was also indicated in the 1944 trials.

From the growers' point of view the foregoing information indicates that Cirrus and Prince might well replace the presently grown varieties Dominion and Gossamer.

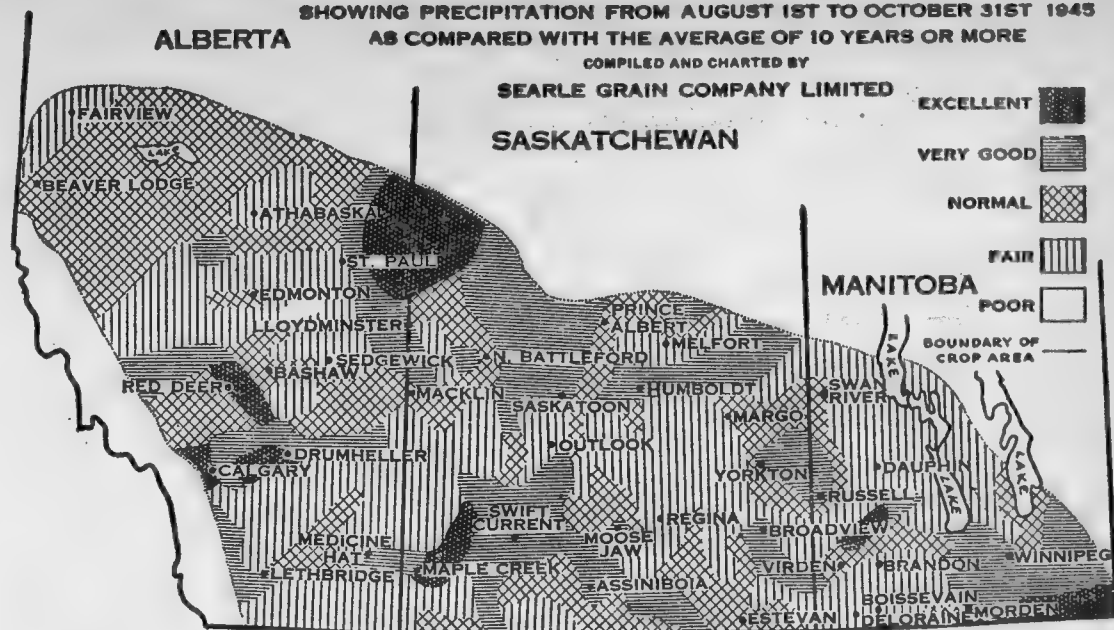
The first 30-mile horse race ever to be held in Calgary will be run on May 24. At Spokane, Washington, a three-year-old Arabian horse recently completed this distance in the remarkably fast time of two hours and 19 minutes.

## WESTERN CANADA PRECIPITATION MAP

SHOWING PRECIPITATION FROM AUGUST 1ST TO OCTOBER 31ST 1945 AS COMPARED WITH THE AVERAGE OF 10 YEARS OR MORE

COMPILED AND CHARTED BY

SEARLE GRAIN COMPANY LIMITED



## U.S. REALIZES VALUE OF FOREST WEALTH

THERE are encouraging signs that the United States public is awakening to the need of conservation of woodland resources, states the New York Times. National and State officials are planning to extend protection to wider areas of forest growth. It is probable that in the immediate future many communities and counties will establish municipally-owned forests. Many privately financed, non-profit organizations are pushing the cause of forest conservation. Through the extension services of the state colleges, farm woodland owners are becoming increasingly interested in handling forest tracts on a scientific basis. Many veterans will undoubtedly enroll for courses in forestry work; since the development of forest areas for public use, the transplanting of millions of trees, fire prevention methods and education of woodland owners offer many vocational opportunities.

A recent report of the United States Soil Conservation Service indicated that some 50,000,000 of the approximate 417,500,000 acres under cultivation in that country should be reforested immediately. Probably another 25,000,000 acres are so eroded, stony or rough that they can be used most efficiently in growing timber.

The recent scourge of forest fires in the western States emphasizes another great problem. Some 30,000,000 acres of woodland are burned annually, of which approximately 90 per cent, in 1942, were not guarded by fire spotters.

## SOFT WHEAT MARKET

Because of the embargo against the importing of soft wheat from United States and Australia, certain milling companies are interested in contracting with Canadian growers for some of this soft wheat, according to William Hay of the Lethbridge experimental station. By use of proper irrigation methods, Mr. Hay believed the protein content of the soft wheat could be kept down to a low enough level, and therefore he believed the irrigated areas were best suited to the production of this crop in Alberta. The present acreage in Canada is mainly in British Columbia and Ontario.

## Grass Crops Differ In Soil Fibre Value

ONE of the important uses of grass in a crop rotation is to increase the fibre content of the soil when the grass is broken up, thus increasing the soil's resistance to wind and water erosion. In preliminary tests at the Lethbridge Experimental Station, root fibre samples taken from a set of grass plots that had been broken up 18 months previously and maintained as summerfallow gave the following results:

Crop Grown	Grams of Roots
Crested wheatgrass	8.12
Brome grass	1.96
Slender wheatgrass	1.40
Alfalfa	1.68
Wheat-fallow	0.28

It was further found that on the crested wheatgrass plots 75 per cent of the root fibre was in the upper six inches of soil. This amount of fibre is sufficient to assist greatly in holding the land.

In planning a farm program for the next few years it is well to consider now the importance of building up the fibre content of the soil.

## Wilt-Resistant Alfalfa May Replace Grimm

A new strain of alfalfa, Ranger, said to be resistant to bacterial wilt which has reduced the life of Alberta hayfields by 50 per cent or more in recent years, is being tested by Dominion plant pathologists in Alberta.

In Nebraska, where the strain was developed, it was found Ranger will stand two or three years longer against bacterial wilt than Grimm alfalfa, according to Dr. M. W. Cormack, associate plant pathologist at the Dominion laboratory of plant pathology in Edmonton. It is believed Ranger or some better strain will eventually replace Grimm in the alfalfa areas of the northern United States, but it will take several years to build up seed stocks. Ranger seems to be as hardy as Grimm, but does not yield so well where wilt does not exist.

In the winter feeding of breeding ewes, grain should never be more than coarsely ground.

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IN the interests of our readers we are advising that when approached by a subscription salesman, you examine his credentials and make sure he is a fully credited salesman. We have received numerous complaints from subscribers, of men who claim employment with this publication, but have no official credentials from this office. They are not agents in our employ and readers are asked that when asked to renew or take out a subscription, to check all credentials. We cannot be held responsible for subscriptions taken by an unauthorized agent. All our agents carry a yellow card signed by an official of the Farm and Ranch Review.

M. HOLMES, Circulation Dept.,  
Farm and Ranch Review,  
Calgary, Alberta

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Cost \$2.00 for 6 months or \$3.00 per year. The breeder listed below will be glad to send particulars on request. Write them of your requirements.

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**750 Watt, 32 Volt DELCO LIGHT PLANT**, heavy, guaranteed batteries, 650-watt, 32-volt Windcharger with tower. Roy Schroter, Brannan, Alta.

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**SEWING MACHINES WANTED**—Distance no object. We pay the freight. We buy any make in any condition whether sewing or not. Old, discarded sewing machines and stands also wanted. Write Humen Sewing Machine Co., 12409 - 87th St., Edmonton, Alta.

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These famous chicks in ever increasing quality have been raised by successful poultrymen for over 25 years.

They are again available in the following breeds: White Leghorns, R.I. Reds, Barred Rocks and New Hampshire.

A letter will bring full particulars and prices by return. Order early and remember:

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White Leghorns \$16.00  
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per 100 to May 17th.

	R.O.P. Sired	Approved
W. Leghorns	\$16.00	
Leghorn Pullets	\$31.00	
N. Hampshires, Rocks, Reds	\$18.00	\$16.00
N. Hampshires, Rocks and Red Pullets	\$29.00	\$27.00
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FOR B.C. PRICES WRITE OUR CHILLIWACK HATCHERY.

Our 1946, 15th Anniversary Year, Catalogue and Flock Record Book mailed on receipt of order or on request.

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WRITE for Special Bargain List on Belting. The Premier Belting Co., 800 Main Street, Winnipeg.

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One of the Nation's largest companies, catering principally to farmers' needs, is ready to place a valuable contract which should mean complete independence for a man fortunate enough to have the following qualifications... character record that will withstand investigation and proven ability to efficiently manage both himself and his own business. Financial status or age are not extremely important, but a car is necessary. Write the advertiser, Box 22, Farm and Ranch Review, Calgary.

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**TREAT YOURSELF** to the best in chicks! You owe it to yourself to realize the best possible results from your labor. That's why you'll want Top Notch chicks as starters for your next flock. For Top Notch chicks are husky little thoroughbreds, bred from Pullorum Government Accredited breeders of proven productivity. Every shipment of Top Notch chicks is carefully inspected so that any weaklings can be culled before you receive them. In this way you are assured a batch of fine chicks ready and able to start you off right. Send for special low prices for March chicks. Also eight to ten-week-old pullets for immediate delivery. Top Notch Chickeries, Guelph, Ontario.

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1,760 ac. with 1,200 ac. cultivated; 500 ac. summerfallow. All black gumbo wheat land; Drumheller district. Two small houses; large barn; excellent well and windmill. Ten miles to town and elevators. \$11.00 per ac.; some terms.

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With Arthritis, Rheumatism, Stomach Ailments, Kidneys, Nerves, Piles, Colitis, Eczema, Female Ailments, Weakness, Run-down, etc., we will gladly refer you to responsible men and women who have proven the merit of Lang's Mineral Remedy to their own satisfaction. Write us for free information, we don't ask you to buy anything. Lang's Mineral Remedies, 946 Robson St., Vancouver, B.C.

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Choice, hardy, acclimatized stock direct from grower at reasonable prices. Write for our descriptive price list now and order early for spring delivery.

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**BOOK YOUR ORDER** with a deposit of 25% before April 15 for hardy, well-grown plants, ready about May 25. Cabbage, dozen, 20c; 100 plants, \$1.25; Cauliflower, dozen, 30c; 100 plants, \$1.75; Celery, dozen, 30c, 100 plants, \$2.00; Tomatoes, dozen, 90c. Bedding plants (Flowers) leading varieties, 40c a dozen. All prices postpaid. Complete list on request. R. Meeks, Mannville, Alta.

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**CONFIDENTIAL HELP AND ADVICE** given by noted Psychologist on Love, Sex, Marriage, Business and all problems of everyday living. If you are in difficulties; if you are in doubt and do not know what to do, then write, stating your problem clearly and in detail, enclosing one dollar. Information free. **LOUIS J. HERZEG**, 1523 East 8th Avenue, Vancouver, B.C.

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Positive relief and comfort. Advanced method. No elastic, no understrap, no steel. Write **Smith Manufacturing Co.**, Dept. M, Preston, Ontario.

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**BLACK OR BUFF COCHIN BANTAMS**—Quality birds. Pair \$5; trio, \$7.50. J. A. Knight, Box 161, Chilliwack, B.C.

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**NELSON FARM RECORD**  
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Leonard Invisible Rubber Ear Drums, helpful in many cases. Sold since 1907. Regular \$5.00 outfit will be sent postpaid for \$2.50 on special trial basis; balance in thirty days only if benefited. Information and recommendations of satisfied users mailed on request. A. O. Leonard Company, Suite R, 5 Boon Ave., Toronto.

## STAMMERING

**STAMMERING CORRECTED**—For free, helpful booklet write William Dennison, 543-R, Jarvis St., Toronto.

## SONG WRITERS

**POEMS WANTED** for musical setting. Send poem for immediate consideration and FREE Rhyming Dictionary. Richard Brothers, 18 Woods Building, Chicago.

**SONG POEMS** wanted to be set to music. Send poem for immediate consideration. FIVE STAR MUSIC MASTERS, 545 Beacon Bldg., Boston 8, Mass.

## TANNERS

**TANNERS, Furriers, Fur Dressers** — Furs stored and repaired, robe and leather tanning, Taxidermy. The Briggs Tannery, Offices and Factory, Burnside, Calgary, Alberta. Phone E 5430.

## TURKEYS

**SELLING BANDED, Blood-tested, Large "White" Holland turkey toms, "AA," \$15.** Crate returned. Barbara Weiss, Neilburg, Sask.

**RAISE TURKEYS** the new way. Write for free information explaining how to make up to \$3,000.00 in your own backyard. Address National Turkey Institute, Dept. 182, Columbus, Kansas.

## WASHER REPAIRS

**MAYTAG Washer and Engine Repairs** carefully done by trained mechanics. A full stock of parts on hand for Maytag repairs, also wringer rolls for most makes. The Maytag Co. Ltd., Calgary and Regina.

## NEW PORTABLE SAWMILL

We sell the "LITTLE GIANT" all-purpose Portable Sawmill for Lumber or Tie Work. Easy to set up and economical to operate. Each mill is complete, ready for saw and power, and you have your choice of Two Size Carriages.

2 Head Block, 16 ft. long—1 Section...\$680.00  
3 Head Block, 20 ft. long—2 Sections...\$780.00

Immediate Shipment. No Delays.  
Write for full Specifications.

## MACHINERY DEPOT LIMITED

1029 Tenth Avenue West,  
Phone W2992 CALGARY, Alberta

## WANTED—MEN FOR POST-WAR EMPLOYMENT

With the release of cars, trucks, all types of farm machinery, steel for buildings, bridges and construction programs, there should be the greatest boom in our history this Spring. Mechanics and Welders will be in great demand, and those who train this Winter will be ready to take advantage of this opportunity. If you are a farmer, a mechanical training will pay you big returns on your investment. If you are over 16, write now for our Free Booklet on MECHANICS OR WELDING, sent post-paid.

**MUSKER Engineering Inst.**  
1515 MAIN ST., WINNIPEG, MAN.

The first calf show and sale ever to be held in the Drumheller district will take place during the second week of June

## Most Weeds Best Controlled by Cultural Methods

**CULTURAL** methods of weed control at present are the best hope for the Canadian farmer, despite promising developments in chemical weed-killers, according to H. J. Mather, supervisor, soil and weeds, department of agriculture, Edmonton.

Tests were conducted against annual weeds by seven different Alberta farmers, who seeded barley and followed various weed control practices on ¼- to ½-mile drill-width strips of field. The best yields, in every case except one where it was a close second, were obtained by a combination of heavy seeding, plus post-seeding cultivation, plus fertilizer. The heavy seeding was at a rate 50 per cent greater than normal; post-seeding cultivation was by means of a rod weeder or wire weeder when the sprouts on the seeds were one inch long — note, not the length of sprouts above ground, but the length of the sprouts on the seeds themselves; and the fertilizer, 11-48-0, was applied at the rate of 30 pounds per acre. The average yield of barley per acre on the seven farms, when this three-way combination was used, was 42.2 bushels per acre. The check plots, on which no special treatment was used, averaged the lowest, 27.3 bushels of barley per acre. The second best average yield, 36.4 bushels per acre, was obtained by heavy seeding, plus post-seeding cultivation, but with no fertilizer. Heavy seeding alone gave an average yield of 28.7 bushels an acre, while an application of "sinox", a relatively new chemical weed killer which is used on broad-leaved annuals, resulted in an average yield of 28 bushels to the acre. On two of the seven fields, fertilizer was used alone, and the results were second and third best respectively.

## Post Seeding Cultivation

For post-seeding cultivation, about which Mr. Mather is enthusiastic, he prefers a rod weeder to a wire weeder in any area where soil drifting is a menace. If the cultivation is done when the seed sprouts are one inch long, the 50 per cent heavier seeding will offset the thinning, as the sprouts can be cut without damage, although the ones actually torn off the seeds will be killed. The only way to determine the date for the post-seeding cultivation is by measuring the sprouts in the ground, as the time may vary about 5 to 14 days after seeding.

Commenting on sinox, Mr. Mather states that while it is a useful weed-killer, the publicity given it probably is a little greater than the facts warrant. Sinox was effective in killing annual weeds in the early stages of their growth, which resulted in increased grain yields particularly where

moisture was good, but as pointed out, better results were obtained by the cultural methods and fertilizers described above.

The cost of sinox for use in a spray is about \$3 an acre, he estimates. In addition, the cost of spraying equipment might run as high as \$1,000. A point which often is overlooked is that it takes 8,000 to 10,000 gallons of water per acre for spraying field crops, which might make the spray method of applying sinox or any other chemical impracticable on some farms. However, Manitoba experiments with sinox dust have been encouraging, he believes, so there might soon be no necessity of spraying this chemical.

**ELEVEN** fields in Conrich, M.D., near Calgary, were seeded to barley in fields infested with wild oats. In most cases, the fields were cultivated in late April or early May and again when sown, about the middle of June. The report, issued in 1945, showed that in the ten fields where Olli or Newal, the two earliest varieties of barley, were sown, the reduction in wild oat infestation was from 85 to 100 per cent in seven of the fields and 80, 75 and 75 per cent in the other three. In the one field where O.A.C. 21 barley was sown, there was a 50 per cent reduction in wild oat infestation.

It will be noted that all the above refers to annual weeds. In the control of perennial weeds, Mr. Mather believes that fall-sown plants, such as fall rye, which develop a root system in the fall and are thus ready to compete against the weeds on an equal footing in the spring, are more effective than a spring sown crop such as barley. He showed a slide picturing one-half of a field heavily infested with healthy Canada thistle, while in the other half, which was seeded to fall rye, no Canada thistle plant was more than one foot high although the rye was considerably taller than that.

Mr. Mather recommends the application of the well-known chemical, sodium chlorate, for the destruction of small patches of Canada thistle, although the cost of \$75 to \$100 an acre makes the method uneconomical against larger infestations. One kind of sodium chlorate, which contains manganese oxide, cakes less than the ordinary kind, and therefore is easier to apply.

## 2-4-D Not a Cure-All

With reference to 2-4-D, the newest weedicide, he points out it is "selective" — i.e., it destroys certain plants and not others—because the 2-4-D spray runs off narrow, waxy leaves, and for that very reason it also is ineffective against certain weeds.

While it is reasonably cheap, and effective against broad-leaved plants such as dandelion and plantain, it definitely is not a cure-all for weed troubles, in his opinion. At a recent conference of agronomists from United States and Canada it was decided not to recommend the use of 2-4-D against deep-rooted perennials.

The conclusion that 2-4-D is not wholly effective against certain perennial weeds was partly borne out by results of experiments at the Experiment Station, Geneva, New York, which were reported in that station's publication, Farm Research. Destruction of sow thistle, dandelion, lambs quarter, chickweed, pigweed and ragweed, and severe checking of bindweed, Canada thistle, milkweed and poison ivy, were effected. These appear to be gratifying results, but at the same time it will be seen that no deep-rooted perennial is included in the list of those weeds completely destroyed.

In the same experiments, grasses

were, in general, only slightly if at all affected, and apple rootstocks were not damaged, but white clover was killed back. There appeared to be no residual effect of the material in the soil, as grains and grasses germinated and grew well when seeded on soil which had been treated with 2-4-D five weeks previously.

Despite the fact that 2-4-D is not a "cure-all", in Mr. Mather's estimation, he states that it is a hormone, which destroys plants by causing them to grow to death, and not a "poison" like the older weed-killers, which kill weeds by sterilizing the ground itself. "The hormone type of weed-killer is a new approach to the old problem, and we may soon have a weedicide which will be effective even on our worst weeds," he declared.

## Canadians Eat Less Meat Under Rationing, More Sent Overseas

Meat rationing in Canada is providing a yearly rate of 150,000,000 additional pounds of meat available for export to the starving millions of Europe and to Great Britain, according to figures released by the Wartime Prices and Trade Board.

The figures show, board officials said, that meat rationing is accomplishing the objective for which it was re-imposed: substantially increasing Canada's shipments overseas.

Domestic consumption of meat has been reduced to a rate of 136 pounds per person per year, compared with a 149-pound rate for the corresponding period in 1944, the statement said. The original objective, when meat rationing went into effect in September, was to set domestic consumption at a rate of 130 pounds per person per year. However, changes in the system, such as the removal of "fancy meats" from the ration, added about five pounds to the per capita rate, bringing the target to 135 pounds.

## Stockyards Trading Closely Regulated

As a protection to the buyer and seller of livestock, certain requirements are made with respect to trading in stockyards and public markets in Canada. Sales agencies and dealers must be bonded and must place funds received from the sale of livestock in a Shippers' Trust Account. All records must be *bona fide* and open for inspection. Schedules of commissions and charges are subject to official approval, as are also scales and weighmasters.

Stockyards proprietors are required to provide adequate accommodation and services, as well as good feed at fair prices. An official representative of the Dominion Department of Agriculture is located at each of the eleven stockyards in Canada to administer the regulations and prepare regular market reports. Certain controls are also exercised over packers' yards in the case of livestock purchased by the packer direct from the country.

Meteorologists predict that commencing this year the great plains of North America will undergo another cycle of drought. While sincerely hoping the meteorologists are wrong, it might be advisable to sow crops as early as possible, in order to take advantage of the moisture from the heavy falls of snow which have occurred in most districts.

## • Rate: Six Cents Per Word, One Insertion •

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9 INSERTIONS FOR THE PRICE OF SEVEN

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Special Rates on Purebred Livestock and Certified Seed—3 cents per word.

In this Department may be advertised anything you want to buy, sell or exchange

Each group of numbers and each group of initials count as one word. Name and address must also be counted.

Copy of paper containing your advertisement will be sent you, and this will constitute an acknowledgment of your order.

Copy of your advertisement must reach us 15 days in advance of date of issue to insure insertion.

Published on the 1st of Each Month.

YOU GET QUICK RESULTS FROM FARM AND RANCH ADS.

## Wit of the World

Fisherman: You've been watching me for three hours. Why don't you try fishing yourself?

Onlooker: I ain't got the patience.

\* \* \*

The twins had been brought to be christened.

"What names?" asked the clergyman.

"Steak and Kidney," the father answered.

"Bill, you fool," cried the mother, "it's Kate and Sidney."

\* \* \*

"Then an explosion tore up Main Street."

"Goodness, and what did you do?"

"Tore up a side street."

\* \* \*

"Repeat the words the defendant used," said counsel for the plaintiff in a case of slander.

"I'd rather not," said the witness timidly; "they were hardly words to tell a gentleman."

"I see," said counsel: "then whisper them to the judge."

\* \* \*

Skeptic Miss: "Can this coat be worn out in the rain without hurting it?"

Fur Salesman: "Lady, did you ever see a skunk wearing an umbrella?"

\* \* \*

"Mummy, the teacher asked me all about you and daddy, and if I had any brothers and sisters."

"I am glad to see her taking so much interest," replied the mother. "What did you tell her?"

"I said I was the only child."

"And what did she say to that?" asked the mother.

"Oh, just 'Thank heaven'."

\* \* \*

"Gee, I feel terrible. It must-a been them clams I et."

"What's the matter; weren't they fresh?"

"I don't know."

"Well, what did they look like when you opened 'em?"

"Gee whiz! Are you supposed to open 'em?"

\* \* \*

Two little boys had misbehaved in school, and as a punishment the teacher told them they would have to stay late, and that each must write his name 100 times. On hearing this, one of them burst into tears.

"'Taint fair," he cried. "His name is Lee, and mine's Kastenbaumenstein."

\* \* \*

Mrs. Newrich (patronizingly): "Were any of your ancestors men of note, Mr. Nobody?"

Nobody: "Yes, madame; I should say so. One of them was the most famous admiral of his day and commanded the allied forces of the whole world."

"It is possible! What was his name?"

"Noah, madame."

\* \* \*

Housewife, to tramp: "You seem to be an able-bodied man. You ought to be strong enough to work."

Tramp: "I know, mum, and you seem to be beautiful enough to go on the stage, but evidently you prefer the simple life."

Housewife: "Step into the kitchen and I'll see if I can stir up a meal for you."

A doctor had an urgent phone call from a gentleman, saying his small son had swallowed his fountain pen.

"All right, I'll come at once," the doctor assured him. "What are you doing in the meantime?"

"Using a pencil."

\* \* \*

Psychiatrist: That habit of talking to yourself is really nothing to worry about.

Patient: Perhaps not, but I'm such a bore.

"Can you tell me the way to the church?" asked the stranger in the village.

"Certainly, sir," replied the oldest inhabitant, obligingly. "Go up the down, keep straight along the crooked lane, then round the square, and when you turn left, you're right!"

"Am dat you, Liza?"

"Yessuh."

"Am you' gwine to marry me?"

"Sho ah is—who is dis talkin'?"

\* \* \*

Man: "What's the difference between the blueplate special and the whiteplate special?"

Waiter: "The whiteplate special is five cents more."

Man: "Is the food better on the whiteplate special?"

Waiter: "No; but we have to wash them."

**Support the Red Cross!**

## \$1000.00 GIVEN AWAY ABSOLUTELY FREE!

### IN THIS UNITED NATIONS' PUZZLE GAME

### Nothing To Buy — Nothing to Sell

Here is a fascinating and educational puzzle game, in which you can quickly qualify for generous cash prizes. COSTS ABSOLUTELY NOTHING TO TRY — COSTS NOTHING TO WIN.

Below are given the names of 30 United Nations Capital Cities. Each of the letters used to form the names of these 30 cities has a certain value in points—as shown in the letter value chart. The object of the puzzle game is to fill in, as on an ordinary crossword puzzle—the names of 15 United Nations Capitals, whose combined letters will total up to the highest possible point value.

### SIMPLE RULES

Starting with either WASHINGTON or LONDON—fill in ALL the blank white squares or spaces—each with a separate letter, so that each section on the chart will spell the name of a capital city. Names must be connected and no spaces are to be left blank. Spell from left to right and from top to bottom. Not more than one letter to be put in any one space. The names WASHINGTON and LONDON must remain on the chart as shown.

Every letter used to spell a name including Washington and London (except letters which join or connect two names) has a point value (see letter-value chart). Letters which join or connect two names have 5 times their regular value, when in that position. For example the "S" in WASHINGTON is worth 10 points, instead of its regular 2-point value. Likewise the "G" is worth 25 points and the "N" valued at 15 points. In LONDON the "L" is worth 20 points while each of the two "N"s is worth 15 points. Only names of cities shown in the list of 30 Capital Cities may be used. No name to be used twice, and spelling must be the same as in the list.

When all the white spaces are filled with letters to spell names—add up the total of each line across (a horizontal line) and then fill in the total of each horizontal line in the space provided at the right in the long ladder-like up and down (vertical) column. Then add up all the horizontal totals at the bottom to obtain the Grand Total. The object is to find the highest possible total for the Grand Total.

#### Capital Cities

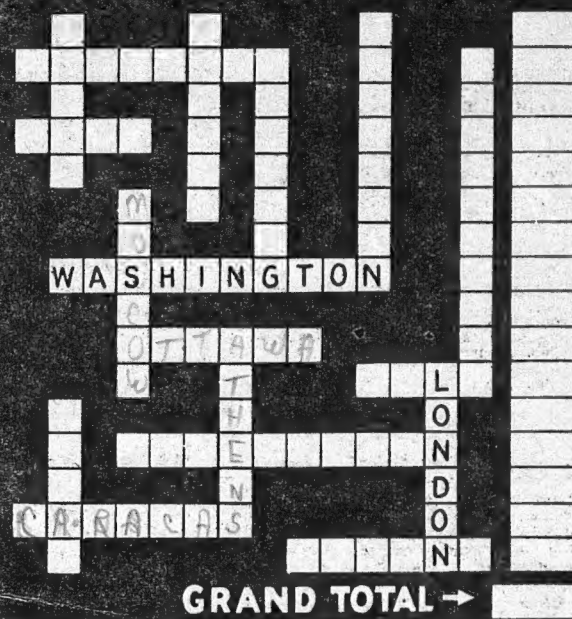
Asuncion  
Athens  
Belgrade  
Bogota  
Brussels  
Cairo  
Canberra  
Capetown  
Caracas  
Copenhagen  
Delhi  
Guatemala  
Havana  
Lapaz  
Lima  
London  
Luxemburg  
Manila  
Mexico  
Montevideo  
Moscow  
Nanking  
Oslo  
Ottawa  
Panama  
Paris  
Prague  
Teheran  
Warsaw  
Washington

All those contestants who succeed in finding the high correct score will then be immediately qualified and eligible to take part, without any delay, in the Final or Tiebreaker puzzle, which will decide the cash prize winners.

### IT'S ALL FREE

When you have solved the puzzle and completed the chart, sign your name and address in the space provided below the puzzle chart. Then mail promptly the entire advertisement to the KAMLOOPS RECREATIONAL SOCIETY, Kamloops, British Columbia. Send no money. All we ask you to do is to send us on a separate sheet of paper the names and addresses of three people whom you know also like to take part in puzzle contest games. EXTRA PUZZLE WORK CHARTS MAILED FREE ON REQUEST.

### UNITED NATIONS' CAPITALS



Name \_\_\_\_\_  
Street \_\_\_\_\_  
City or Town \_\_\_\_\_ Prov. \_\_\_\_\_ K

#### LETTER VALUES

A — 3  
B — 7  
C — 7  
D — 4  
E — 1  
F — 6  
G — 5  
H — 8  
I — 1  
J — 8  
K — 8  
L — 4  
M — 3  
N — 3  
O — 1  
P — 5  
Q — 9  
R — 2  
S — 2  
T — 2  
U — 4  
V — 9  
W — 7  
X — 9  
Y — 5  
Z — 9

### No Money to Pay

To advertise Kamloops, the heart of British Columbia's Vast Inland Empire, and the Tourist Attractions of the Famous Kamloops District, as well as to acquaint you with our Post War Plans and Activities, the Kamloops Recreational Society will award — absolutely FREE 115 Cash Prizes totalling \$1,000.00. First Prize is \$200.00, Second Prize \$100.00, Third Prize \$50.00, Fourth Prize \$25.00 — next 31 Prizes \$10.00 each — another 35 prizes each \$5.00 and 45 more prizes each \$2.00. 115 Prizes in ALL—Total Value \$1,000.00. Remember the contest is entirely FREE. There is nothing to pay—nothing to buy or sell. THIS POSITIVELY IS NOT A LOTTERY AND IS ABSOLUTELY LEGAL.

### QUALIFY FOR \$4,000.00

Be sure to mail your puzzle solution promptly—as a SPECIAL EXTRA bonus prize of \$10.00 will be given to each of the 5 Major winners as a reward for promptness.

The same day we receive your answer we will reply telling you how you stand, and also advising you how you may qualify for STILL LARGER and more generous Cash Prizes, in which YOU CAN WIN AS MUCH AS \$4,000.00. In this BIGGER CASH PRIZE DISTRIBUTION, a total of TWELVE THOUSAND DOLLARS more will also be given away in the next few weeks.

We want thousands of people across Canada to know all about the wonderful scenic beauties, including the famous 60 lakes, that provide some of the most excellent fishing and hunting in the world—all located in the immediate territory which surrounds the beautiful mountain city of Kamloops. Attractive illustrated tourist literature describing the unexcelled vacation lands of British Columbia, will be sent to all. So answer the puzzle NOW. Don't Delay. Join in the fun. Anybody can take part. Judges are all well known men.

**Kamloops Recreational Society, Kamloops, B.C.**



# Banff Springs Hotel

## WELCOMES YOU AGAIN



Here is news for your holiday-hungry heart!

Glorious Banff Springs Hotel in the Canadian Rockies will reopen on June 15 this year—golf, riding, swimming, hiking! Other world-famous Canadian Pacific resort hotels in Eastern and Western Canada will reopen this summer too—Chateau Lake Louise,

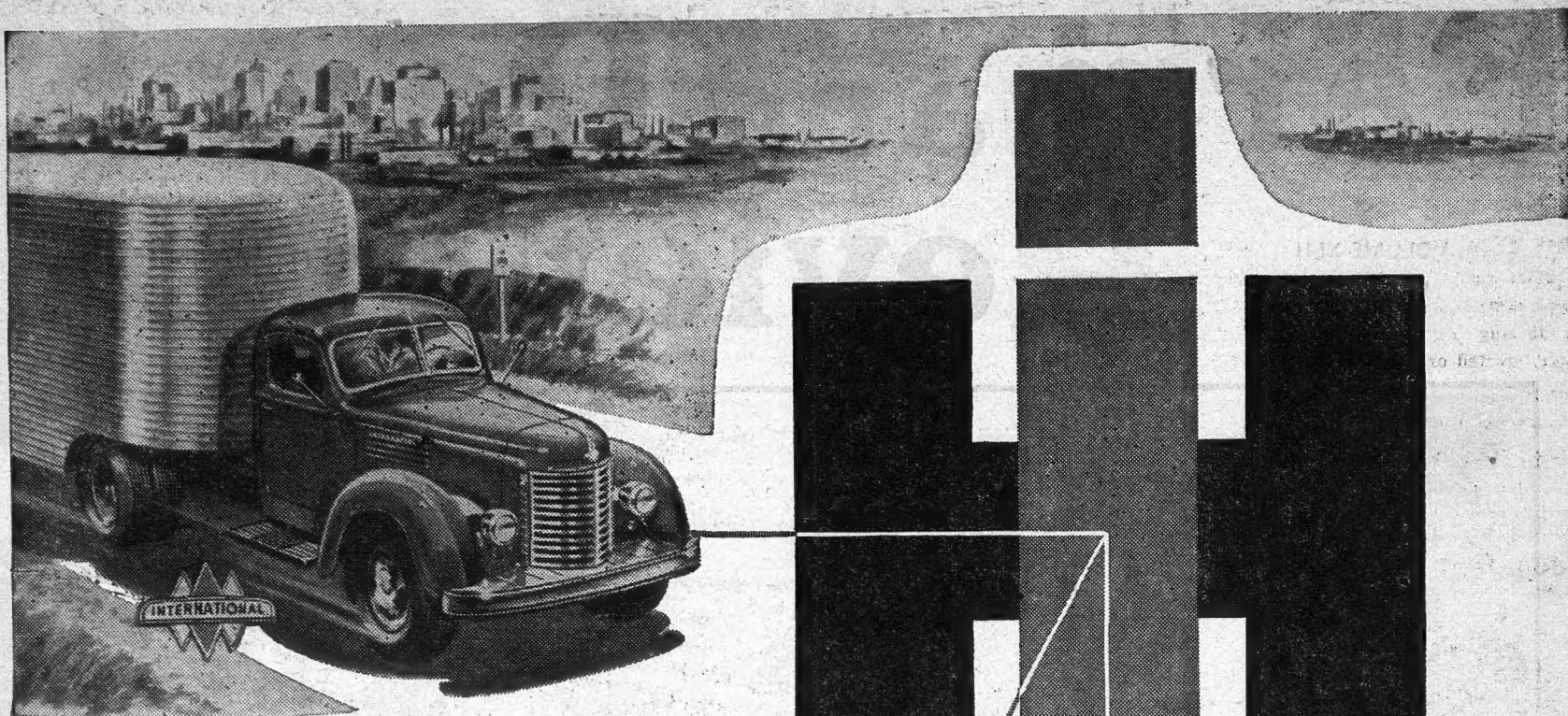
Emerald Lake Chalet and Mountain Lodges in the Rockies, the Algonquin Holiday Colony at St. Andrews-by-the-Sea, New Brunswick, the Digby Pines in Nova Scotia—and others. These Canadian Pacific resorts are famous for hospitality, courtesy and service. They have been host to countless thousands of visitors from every part of North America and many foreign lands.

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Canadian Pacific Railway agent.*

# Canadian Pacific



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- A renewed determination to build products of lasting quality—to build machines that are essential in the Canadian plan to make a better Canada.

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**THE PRODUCTS** that Harvester builds in its twenty-one manufacturing plants—the International Farm Tractors and Equipment, the International Trucks, International Industrial Tractors and Engines — are working today in every community in the land.

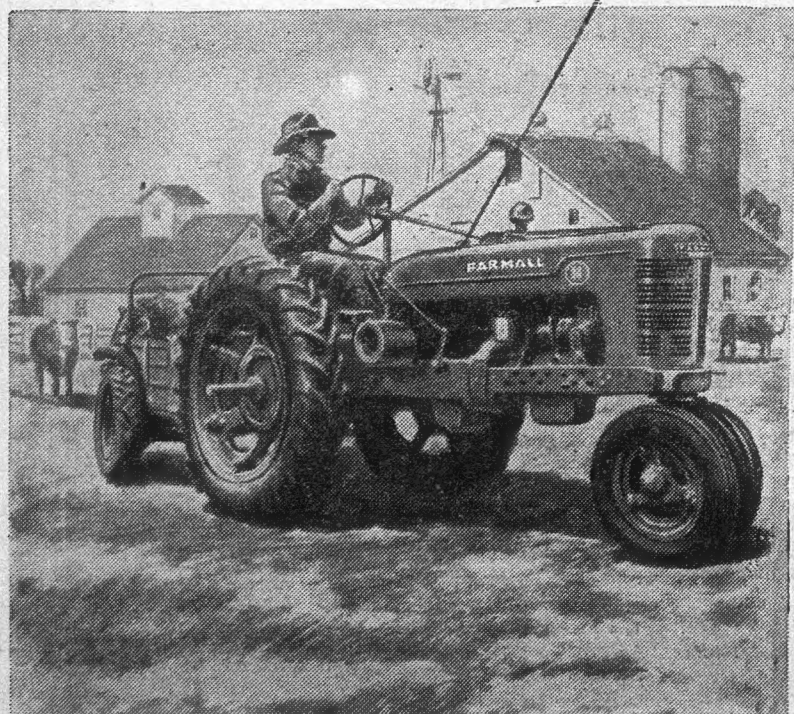
And to us the important fact is not that we build them, but that their millions of owners speak highly of them. Not that the International dealers sell them, but that, on the job, they serve just about everybody, everywhere. On the farm and in the

city they serve you, the reader of these words.

Harvester has seen Canada grow — has helped immeasurably in its development. Harvester will help in greater measure in the new era that lies ahead for agriculture and industry.

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**INTERNATIONAL HARVESTER COMPANY  
OF CANADA LIMITED**  
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## CANADA'S LARGEST ANNUAL BULL SALE

AT CALGARY, ALTA.



**MARCH 19 to 22, 1946**  
**1,141 BULLS**

217 Shorthorns, 165 Aberdeen-Angus and 759 Hereford — all registered and Government-tested Herd Headers and good range Bulls from leading Alberta breeders.

### FAT CATTLE AND FEMALE SHOW AND SALES

Monday, March 18, at 2:30 p.m. A selected entry representing the three best breeds from prominent Alberta Breeders.

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General Information Direct to

**Alberta Livestock Associations**  
CALGARY, ALBERTA, CANADA  
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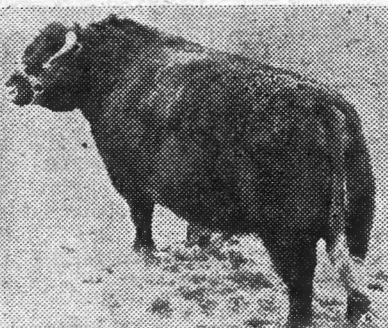
Add a few drops of Rex Wheat Germ Oil to regular rations and make a profitable producer of every organically right animal on your farm. Rex Oil prevents and corrects non-organic breeding troubles because it supplies in concentrated form factors necessary for successful breeding.

Start using inexpensive Rex Oil now and make profits. Results guaranteed or your money refunded. Sold at feed and drug stores. 4 oz. \$1.25; 20 oz. \$5.00. Write for FREE booklet.



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## Record 1141 Entries Listed For 46th Calgary Bull Sale

OFFICERS and directors of the Alberta Cattle Breeders' Association, preparing for the 46th annual Calgary Bull Sale, announce that this year's entry list of purebred bulls is the largest in the long history of the event. Contributors have entered a total of 1,141 animals, comprising 759 Herefords, 217 Shorthorns and 165 Aberdeen-Angus. Last year, 799 bulls passed through the sale ring for a total of \$364,845. Since its inception in 1901, this annual sale has disposed of 18,944 bulls for a grand total of \$3,776,845.

In view of the exceptionally heavy entry promised for this year's sale, contributors are being advised by the management not to bring in animals which are in any way defective or which are not outstandingly good representatives of the breed. A culling committee at the grounds will weed out any inferior animals and send them to the stockyards.

Boys' and girls' baby beef classes have brought a list of 47 good calves, 21 of which are Shorthorns, 18 Herefords and 8 Aberdeen-Angus. In addition, 30 single fat animals are entered for the fat stock classes, and some 80 selected purebred beef females are being offered for sale.

Baby beef and fat stock classes will be judged on Monday, March 18, and these entries along with the females will be sold that afternoon. All bulls will be judged Tuesday morning, and the sale, starting with Herefords, will commence that afternoon.

In all, 1,088 horses have been entered for the annual spring horse sale to be held March 5, 6 and 7. Contributors to this event have also been warned that there is a good market only for animals that are well broken and well fitted and conditioned. It is believed that there will be some demand for heavier horses for woods work, and a number of eastern buyers are expected to attend.

## E. I. Clarke Heads Edmonton Fair Board

E. I. Clarke, well-known livestock breeder, has been elected president of Edmonton Exhibition Association, succeeding Lee S. Williams, who occupied the chair during the past three years, when the organization was carried on most successfully through very trying times. R. V. Price is vice-president.

Members of the executive are: Ald. Bisset, Ald. Mitchell, James Paul, Namao; W. C. Bissell, Viking, and Carl Berg; Dr. G. M. Malmes, veterinarian; Thomas E. Gardside, solicitor.

## REVIVE INTERNATIONAL

America's largest livestock show—the International Livestock Exposition—will be held November 30 to December 7, 1946, after a wartime lapse of four years. The last exposition, held in 1941, closed the night before Pearl Harbor, and the show's directors voted several months later to suspend the exposition for the duration of the war.

Three honorable mentions were won by Hays Ltd., Calgary, in the annual All-Canadian contest for Holsteins: Gerben Alcartra Wayne in the four-year-old class; Hays' Hayden Ruth in the heifer calf class; Beverly Marma Wayne in the class for senior yearling bulls.

## 453 ENTRIES FOR KAMLOOPS SPRING SALE

Rigidly-culled bulls consisting of 95 Herefords, 30 Shorthorns and three Aberdeen-Angus will be offered at the Kamloops bull sale on March 14. On March 13, a total of 325 grain-fitted beef animals of the quality for which this sale is famous, will be auctioned. All the livestock will be judged by Prof. J. W. G. MacEwan, of the University of Saskatchewan. Auctioneers will be Mat. Hassen and Son, Armstrong, and J. W. Durno, Calgary.

## CREAMERY FOR BROOKS

A new creamery that may be completed by spring will be built in Brooks by the Southern Alberta Dairy Pool to serve a large area of the Eastern Irrigation District and a considerable adjacent territory.

## Edmonton Show April 9-11

Edmonton Exhibition directors and officials are completing arrangements for three important events on their spring calendar. A heavy entry list is expected for the auction sale of draft and farm horses and purebred mares to be held at the exhibition grounds on Tuesday, March 26. Entries close March 25.

Entries will close on March 9 for the sale of registered bred sows which will be held on April 10.

April 9-10-11 have been selected as dates for the annual spring livestock show. Entries for the fat stock show and sale and junior calf-feeding competitions will close on March 23. Entry forms, catalogues and other information is available to prospective exhibitors or buyers at the exhibition office at the Arena.

## Advocate Specialized Prairie Farm Horse

THE animal husbandry department of the University of Saskatchewan has a program planned to develop a breed of horses which will be suitable to the needs of prairie farmers. While it is recognized that the horse is on the wane, the department maintains that a utility type team will always be useful around the average mixed farm. It plans to propagate middle-weight horses, clean limbed, chestnut in color, full of action, toughness and fertility, and above all, versatile.

The type desired is 15.3 hands in height and 1,500 pounds in weight. A team of mares of this type has been found in a cross between Clydesdale-Hackney stock. Professor Grant McEwen of the department says there are still a good many jobs on the farm that can be done only by horses.

## Edmonton Exhibition HORSE SALE March 26th EXHIBITION GROUNDS

Entries for Auction Sale of Draft and Farm Horses and Purebred Mares  
Close March 25th.

**BULL SALE**  
APRIL 11th  
Bull Sale Entries Close  
March 9th.

Sale of Registered Bred Sows, April 10  
Entries close March 9.

## SPRING SHOW DATES

APRIL 9 - 10 - 11

Entries for Fat Stock Show and Sale and Junior Calf Feeding  
Competitions close March 23rd.

For complete information, Entry Forms and Bull Sale Catalogue write:

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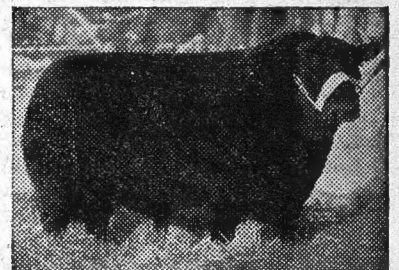
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